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STATE OF WASHINGTON
DEPARTMENT OF STATE

Bureau of Statistics and Immigration

I. M. HOWELL, Secretary of State
Ex-Officio Commissioner

16-27170

The Logged-Off Lands OF Western Washington

(REVISED EDITION)

By H. F. GILES
Deputy Commissioner



OLYMPIA.
FRANK M. LAMBORN  PUBLIC PRINTER
1915

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LETTER OF TRANSMISSAL.

OFFICE OF THE
BUREAU OF STATISTICS AND IMMIGRATION.
OLYMPIA, November 16, 1914.

Hon. I. M. Howell, Ex-officio Commissioner.

SIR: Pursuant to your instructions, I have prepared and have the honor to transmit herewith a revised report dealing with the logged-off lands of the western half of this state, with a recommendation that an edition of 5,000 copies of same be published for general distribution in connection with the work of this department.

Respectfully,
H. F. GILES,
Deputy Commissioner.

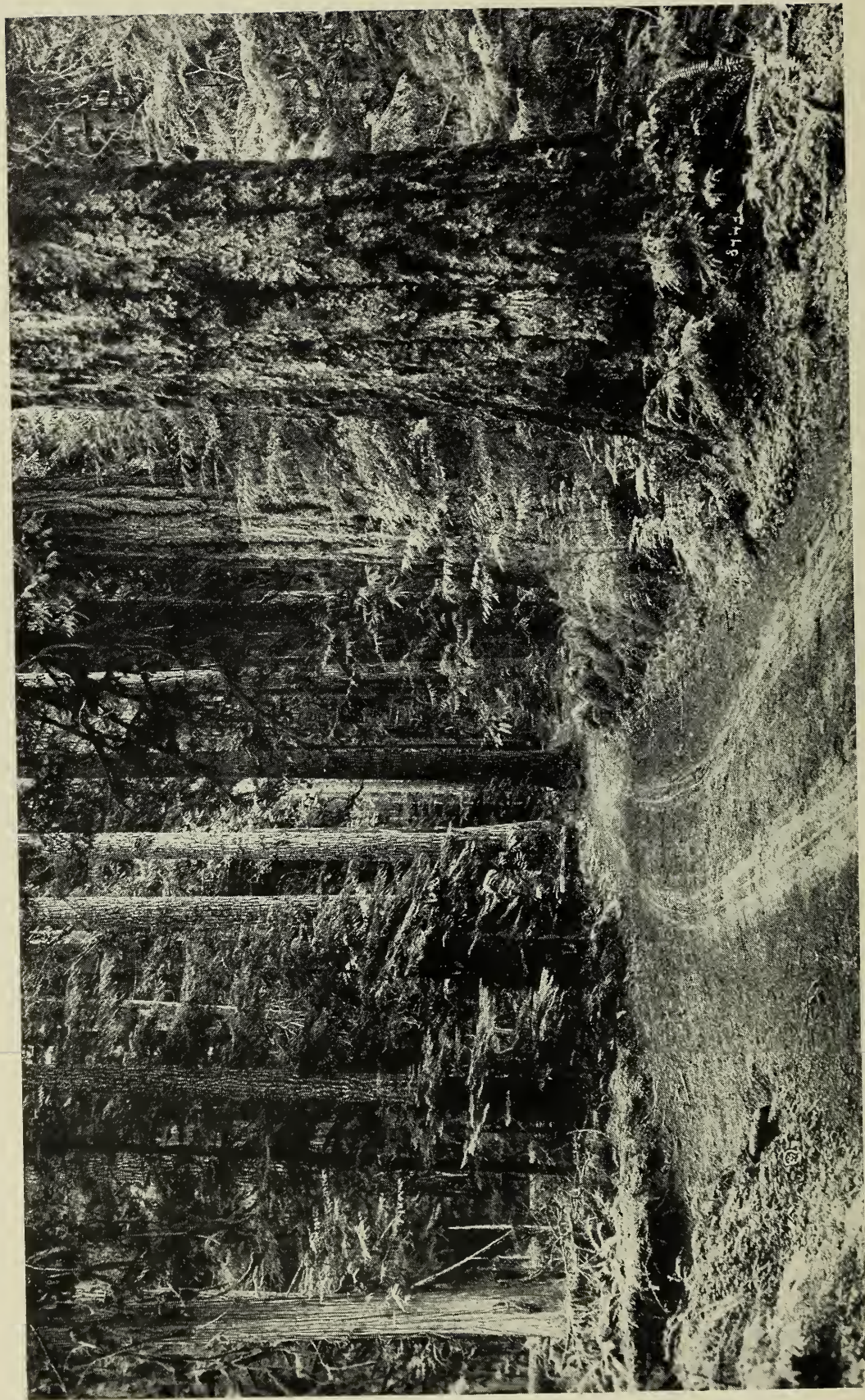
Approved for publication, April 1, 1915.

I. M. HOWELL,
Ex-Officio Commissioner.

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TABLE OF CONTENTS

	<i>Page</i>
Foreword	5
Introduction	7-16
Characteristics of region.....	7
Climate of Western Washington.....	9
Agriculture a leading industry.....	11
Transportation	11
Power development	11
Urban development	12
Educational advantages	13
Scenery and hunting.....	13
Methods of clearing land.....	13
Climatological table	16
County groups	17-37
Whatcom, Skagit, San Juan, and Island.....	17-21
Snohomish, King and Pierce.....	21-24
Clallam, Jefferson and Kitsap.....	25-29
Chehalis, Mason, Thurston, Pacific and Lewis.....	30-33
Wahkiakum, Cowlitz, Clarke, Skamania and Klickitat.....	34-37
Individual crop reports by the farmers.....	38-50
Individual experiences in land clearing, marketing produce, etc....	50-55
County assessors' estimates.....	56-57
Concluding statements	59-60
Table of livestock in Western Washington.....	61-62
Incorporated towns and population.....	63-64
Secretaries of commercial organizations.....	63-64
Map of State of Washington.....	



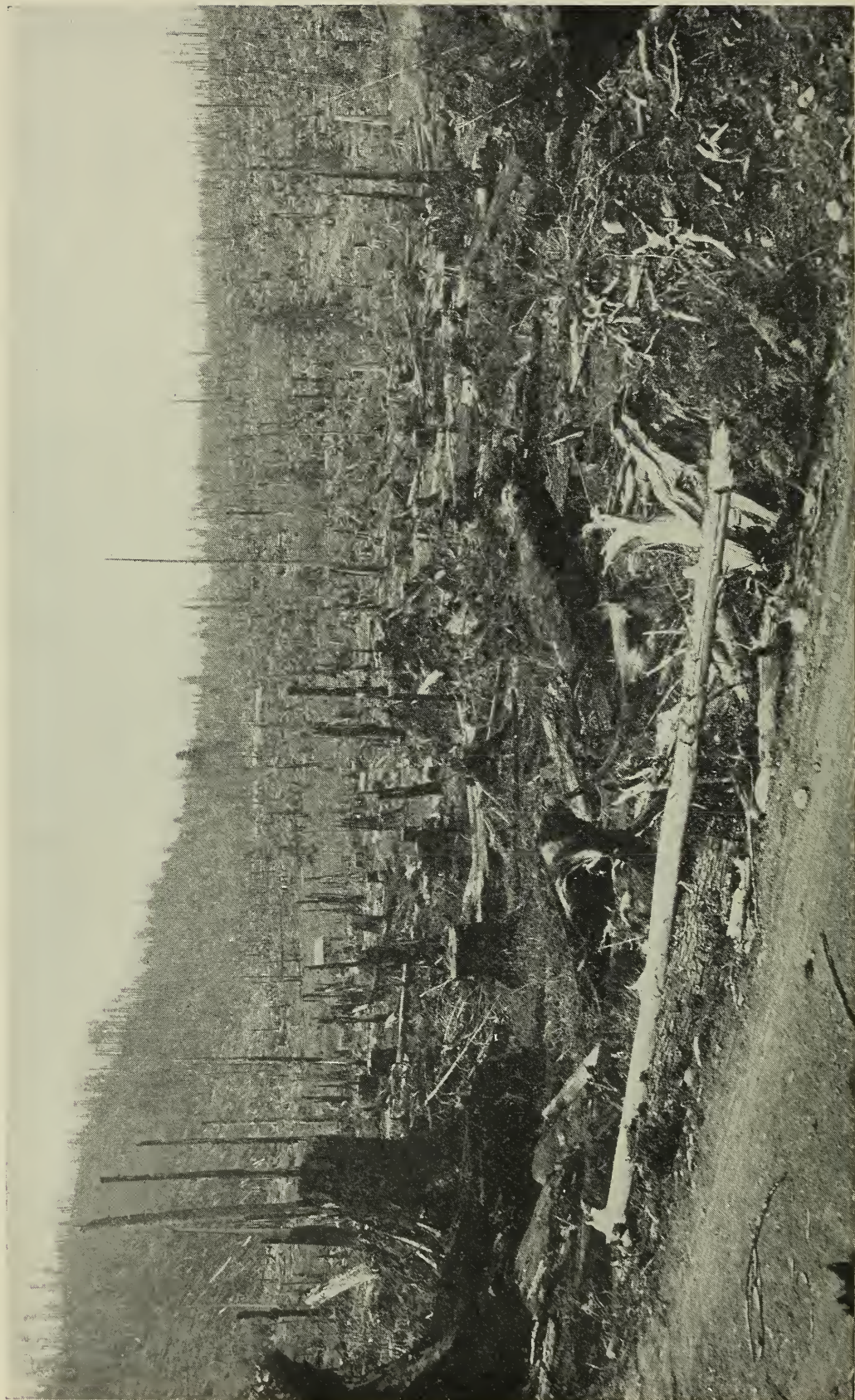
THE FOREST PRIMEVAL BEFORE ANY TIMBER HAS BEEN CUT.
Photo by Curtis & Miller.

FOREWORD.

This publication has been prepared and revised to meet the insistent demands of the outside inquirers for information regarding the possibilities of the stump lands of Western Washington. It is hoped to soon cover the eastern half of the state with a revision of the pamphlet entitled "The Irrigated Lands of the State of Washington," which met with such favor when published before. Two comprehensive pamphlets dealing with the entire state are already in circulation, one "The Homeseekers' Guide to the State of Washington," and the other "The Beauties of the State of Washington." The first of these describes each county and municipality in detail, but without pictures, and is intended to assist the prospective immigrant in properly locating himself in Washington. The other is highly illustrated, dwells largely on the scenic attractions, and is intended principally for tourists. Either of these will be mailed free, upon application to this Bureau.

The prospective settler will do well to refer to the list of commercial organizations published on pages 63 and 64, and communicate with those located in that part of the state which interests him most. The secretary of each of these bodies will gladly send further information concerning his own region.

Due thanks is extended to all persons or organizations that rendered any assistance in the preparation of this work.



AFTER THE TIMBER HAS BEEN REMOVED.
Photo by Curtis & Miller.

INTRODUCTION

With the exception of certain parcels of prairie and river bottom land inconsiderable in extent, almost the entire land area of western Washington was once covered with a dense timber growth. The more important varieties of forest trees represented, include the yellow fir, cedar, spruce and hemlock.

Since the days of its early settlement, lumbering and subsidiary enterprises have constituted the leading industry of the section, and at present Washington outranks all other states in the Union in the value of its annual output of lumber and lumber products.

The operations of the loggers began at tide water where the giant tree trunks could readily be assembled in rafts and towed to the mills. With the growth of the industry, the interior country was penetrated, particularly along the courses of the larger streams, upon which the logs could be floated in their journey to market. Later on, the railroads came, and in addition to the service supplied by the great trans-continental systems, numerous logging railroads have been constructed for the purpose of developing the more distant timbered areas.

Left in the wake of the timberman are tens of thousands of acres of "logged-off" or cut over lands, which are now in process of being converted into farms, pastures and orchards.

It is the purpose of this report to consider the agricultural advantages offered by these lands from the standpoint of results already accomplished, and to place in the hands of interested homeseekers such additional information as will be of service to them in their quest for a location.

CHARACTERISTICS OF THE REGION.

The chief physical features of the district under consideration include the Olympic mountains, the Puget Sound basin, the Cascade mountains, a portion of the Columbia river, and the

two indentations of the ocean, known respectively as Grays and Willapa harbors.

The Olympic mountains constitute the coast range and present a rough, rugged series of peaks that have proven at once the glory and despair of many an ambitious mountain climber. These mountains extend in a general north and south line a distance of more than one hundred miles, from near the Straits of Juan de Fuca, until they are bisected by the valley of the Chehalis river.

Roughly paralleling the Olympics, some 120 miles to the eastward, lies the Cascade range, the great natural wall separating western from eastern Washington. Numerous mountain streams, finding their sources in the summits of the Cascades, present remarkable opportunities for power development, as yet only partially utilized. The timber and mineral wealth of these mountains and their foothills are also important agencies that are contributing largely to the general prosperity of the district.

Between the two mountain ranges, above described, is located the great inland sea known as Puget Sound. The shore line of this magnificent body of water is more than 2,000 miles in extent, and on its borders are located Seattle, the metropolis of the state, Tacoma, Everett, Bellingham, Olympia, Port Townsend, and other growing communities. Ships of all nations load and discharge their cargoes at the various Puget Sound ports, and the annual volume of foreign trade registered by the federal customs authorities at Seattle is in excess of \$50,000,000.00

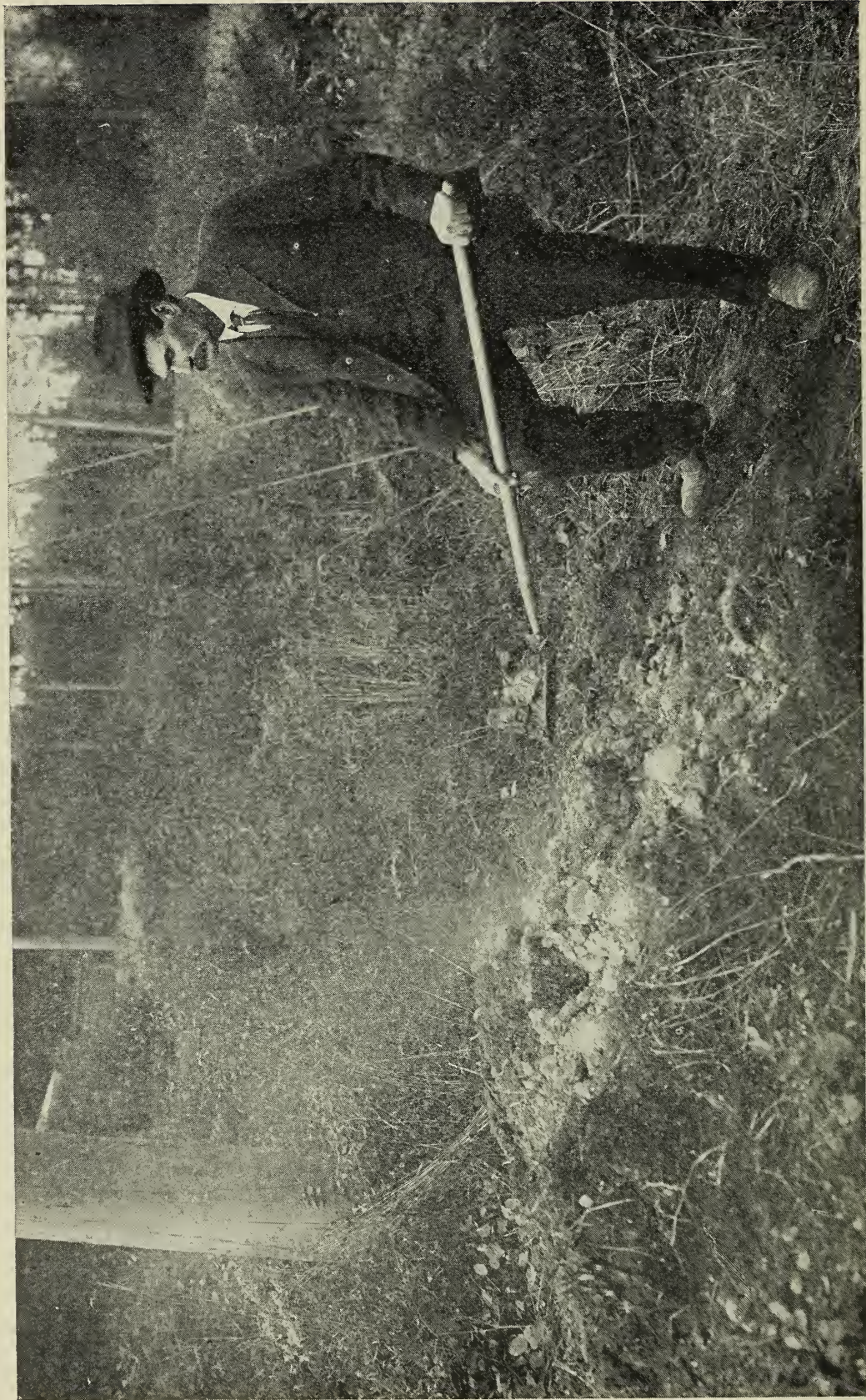
Willapa and Grays harbors are located on the ocean side of the state and each is developing several important and rapidly expanding shipping and industrial centers, chief of which are Aberdeen, Hoquiam, South Bend and Raymond.

The Columbia river constitutes about one-third of the southern boundary of the state. It is open to the commerce of the world at its mouth, and steamers of light draft ply its waters for hundreds of miles in its course through the state.

The Panama canal now completed will have an important bearing upon the development of the commercial interests of both the country tributary to the Columbia river and the seaports of the state. The probable decrease in freight rates from the Atlantic coast to the distributing centers of Washington will tend to broaden the trade influence of this whole state and contribute largely to the growth of all its great manufacturing and agricultural industries.

CLIMATE OF WESTERN WASHINGTON.

In speaking of the climate of the district under consideration, special reference is made to the valleys and lower uplands. There is such a wide variety of altitude in western Washington, that almost every kind of climate is represented in some section. The highly developed districts of this portion of the state, however, are confined largely to the shore line of the salt water and to the lands of the river valleys, and speaking with special reference to these more thickly inhabited portions of the district, it may be said that the climate is uniform and equable. There are no extremes either of heat or cold. The characteristic feature of the winter climate is a heavy rainfall which continues for a period of several months. The summer climate is delightful; the days being for the most part warm and sunny, and the nights having invariably a pleasing coolness. By reason of its desirable summer climate, western Washington is rapidly attaining a national reputation as a great summer playground. The unusually heavy rainfall makes irrigation unnecessary, and nearly all crops mature successfully without the aid of an artificial water supply.



STUMPS REDUCED TO CHARCOAL BY THE CHAR PIT PROCESS.
Photo by Curtis & Miller.

AGRICULTURE A LEADING INDUSTRY.

Conditions of soil and climate in western Washington have conspired to make agriculture one of the leading and most important industries in which the citizens engage. The abundant rainfall mentioned in the foregoing discussion of the climate, suggests the adaptability of the district to the dairying industry. Washington is known from its great timber growth as the "Evergreen State," and western Washington may easily claim the same title by reason of its evergreen pastures. In recent years the dairying industry has attained enormous proportions, and dairymen have been encouraged by the establishment of several large milk condensing factories which absorb all their surplus products at very favorable prices. It follows naturally that hay is a leading crop, and with this may be included potatoes and all other root crops, small and tree fruits, and some grain. On the delta lands at the river mouths, oats and a soft wheat, suitable for feed, are produced in enormous quantities.

TRANSPORTATION.

Western Washington being the site of several seaport cities is equally well provided with transportation both by rail and water. The Northern Pacific, Great Northern and Milwaukee systems, Canadian Pacific and the Oregon & Washington Railroad & Navigation Co. all have terminal facilities in the cities of Puget Sound, and from these same cities steamship lines provide transportation to Alaska, California and to the Orient. Huge freighters also sail regularly to and from the great marts of Europe.

POWER DEVELOPMENT.

Numerous mountain streams, flowing into Puget Sound and into the ocean inlets, provide an inexhaustible supply of water power which may be readily converted into electric energy. The opportunities thus offered have already been seized in many places and there is scarcely a village so small that it is not provided with electric light and power. This same service is rapidly being extended to the rural sections and many of the farms are equipped with up-to-date machinery operated by electricity.

URBAN DEVELOPMENT.

The astonishing growth of the cities of western Washington during the past decade, as indicated by the recent census returns, show something of the market facilities afforded to farmers locating in this section.

The growth of some of the more important of these cities during the period mentioned is shown by the following table:

<i>City.</i>	<i>Population</i> <i>1900.</i>	<i>Population</i> <i>1910.</i>	<i>Estimated</i> <i>Population.</i> <i>1914.</i>
Aberdeen	3,747	13,660	18,220
Anacortes	1,476	4,168	5,500
Bellingham	11,062	24,298	29,937
Centralia	1,600	7,311	10,000
Chehalis	1,775	4,507	5,600
Everett	7,838	24,814	32,048
Hoquiam	2,608	8,171	10,540
Olympia	3,863	6,996	10,000
Port Townsend.....	3,443	4,181	5,000
Puyallup	1,884	4,544	6,000
Raymond	84	2,450	5,500
Seattle	80,671	237,194	313,029
Snohomish	2,101	3,244	5,000
South Bend.....	711	3,023	4,500
Tacoma	37,714	83,743	103,418
Vancouver	3,126	9,300	11,930

By reason of this great centralization of population, the problem of providing food stuffs for the cities of western Washington has been forced sharply into prominence. To supply food for one-half million city dwellers is a staggering task, and when it is understood that a very large proportion, perhaps more than one-half of the food consumed in the cities above mentioned is brought in by rail and steamers from other states, an idea may be formed of the opportunity that awaits the industrious and thrifty farmer. In some of the cities, public markets are maintained where the producer meets the consumer direct and sells his product without reference to any middle agent. In this way the farmer secures a fair price for what he grows, and the buyer is given the advantage of purchasing fresh products direct from the grower at reasonable rates.

EDUCATIONAL ADVANTAGES.

The foundation for the public school system in the State of Washington has been laid on broad and intelligent lines. The state received upon admission to the Union an endowment of lands which in time will bring into the public treasury an amount not less than fifty millions of dollars. This money constitutes a permanent and irreducible fund, no part of the principal of which can be expended for any purpose.

As the lands are sold, the returns are invested in interest-bearing securities, and this revenue, which is constantly increasing, will in time contribute a very large proportion of the annual expenditures for public school purposes. At the present time only about one-tenth of these lands have been disposed of, and for school purposes an annual tax is levied in the different districts which, together with the revenue from the above mentioned source, provides a total sum of \$10.00 for each pupil in attendance at the public schools. Educational experts, who have investigated the school system of this state, are unanimous in the verdict that no state offers better or more complete facilities for the education of its children.

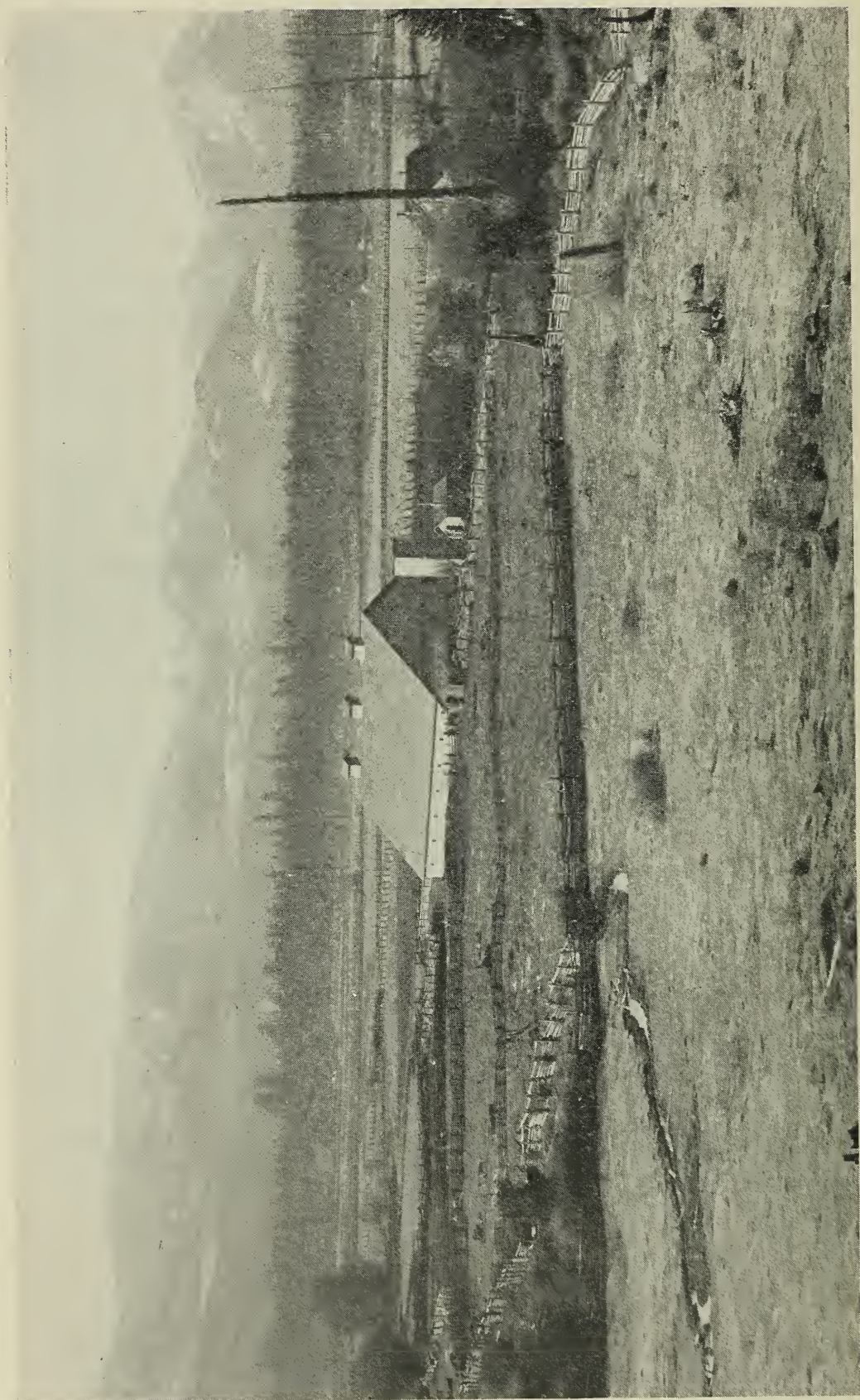
SCENERY AND HUNTING.

To its other advantages, western Washington adds the attractive feature of grand and awe-inspiring scenery. The whole section offers an ever-changing view of snow-clad mountains, evergreen hills and mountain streams, and the arms of the ocean, which reach into the interior, are studded and gemmed with hundreds of beautiful islands and with scores of land-locked bays and harbors.

The woods and mountain slopes afford all manner of sport for hunters, while the waters of the mountain streams and the salt water inlets abound with all kinds of fish.

METHODS OF CLEARING LAND.

As the lands of western Washington come from the hands of the loggers, they present a forbidding and difficult problem. Many of the giant fir and cedar stumps attain a diameter in excess of ten feet, and the task of removing them would appear



PEACE AND CONTENTMENT ON A LOGGED-OFF LAND FARM—OLYMPIC MOUNTAINS IN BACKGROUND.

Photo by Webster & Stevens.

at first sight almost hopeless. Modern science and genius have been successfully brought to bear upon the problem, however, and it is now merely a question of the investment of so much money to clear up and place under cultivation any given area of land. Several methods are followed in doing this work. Originally the settler attacked the stump with axe and mattock and by dint of keeping everlastingly at it succeeded in clearing a space sufficient for the family garden.

As the importance of the problem was realized, other methods were devised and authorities differ as to which of these methods is the most economical and practical, although every one of them claims its list of ardent supporters. A great many favor the use of giant powder with which the stump is blown from place, the fragments being collected and burned. The donkey engine and stump puller are also in common use, and both have proven effective in clearing up the land. More recently what is known as the "Char Pit System" has come into use, and under certain conditions has proven exceptionally satisfactory. This method was brought into prominence by Prof. H. W. Sparks, superintendent of the Department of Farm Demonstration of the Washington State College. In applying this method, the bark is first removed from the stump and a ring of kindling some six or eight inches thick is then formed around the stump; the kindling is covered with sod and lumps of clay, with the exception of a small opening where the fire is applied. When the entire circle of kindling is ignited, the opening is likewise closed over with sods and the fire is thus driven into the heart of the stump. When properly prepared, such a fire will burn completely through the stump, and if given some further attention, will follow the roots of the tree into the ground and burn them entirely out—thus leaving the land ready for the plow.

The state college authorities at Pullman have experimented and compiled data upon all of these various methods of land clearing, and upon application to that institution, full descriptions of the different methods will be given together with the cost of each.

CLIMATOLOGICAL DATA FOR WESTERN WASHINGTON FOR THE YEAR 1913.
(Compiled from report of U. S. Weather Bureau.)

STATIONS	COUNTIES	Elevation, feet.	TEMPERATURE (Degrees Fahrenheit)					PRECIPITATION (Inches)							SKY					
			Length of Record yrs.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of Record yrs.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall unmelted.	No. rainy days.	No. clear days.	No. partly cloudy days.	No. cloudy days.	Prevailing direc- tion of wind.
Western Division																				
Aberdeen	Chehalis.....	162	23	.....	97	July 31	19	Jan. 5	23	81.68	17.58	Nov.	1.08	Aug.	19.0	184	121	104	140	nw
T7 Anacortes	Skagit.....	60	19	48.8	83	July 21†	18	Jan. 19	20	28.38	5.88	Jan.	0.83	July	12.0	141	126	193	46	....
T2 Baker	Skagit.....	390	8	49.2	90	Aug. 1	13	Feb. 7	8	65.49	14.19	Jan.	1.80	July	77.5	137	111	57	197	....
Bellingham	Whatcom.....	60	19	87	87	Aug. 1	10	Jan. 19	19	28.34	4.57	Jan.	1.05	July	21.4	120	165	84	116	nw
Bellingham, near	Whatcom.....	107	3	85	85	Aug. 1	8	Jan. 20	3	....	....	....	....	....	....	....	....	....	....	....
Blaine	Whatcom.....	57	17	47.9	84	Aug. 1	9	Jan. 19	17	41.36	6.66	Jan.	0.91	Aug.	27.7	161	86	130	149	sw
Bremerton	Kitsap.....	40	....	....	....	....	....	....	16	27.86	7.14	Nov.	0.48	Aug.	....	102	....	....	....	....
Buckley	Pierce.....	685	1	49.0	94	Aug. 21	18	Jan. 5	1	44.81	9.63	Jan.	0.80	July	28.2	167	68	128	169	sw
Centralia	Lewis.....	212	21	97	97	Aug. 10†	14	Jan. 5	21	32.12	6.22	Nov.	0.43	Aug.	11.0	147	88	168	109	s
Clearbrook	Whatcom.....	140	11	48.4	94	Aug. 1	3	Jan. 19	11	55.75	9.81	Jan.	1.77	Aug.	66.5	131	88	140	137	ne
Detroit	Mason.....	30	6	50.3	99	Aug. 10	17	Jan. 5	9	44.59	9.56	Nov.	0.50	Aug.	9.0	137	108	133	124	s
Granite Falls	Snohomish.....	397	....	....	....	....	....	....	11	61.88	10.72	Jan.	2.44	July	....	179	107	101	157	e
Kent	King.....	53	1	50.0	93	July 22†	13	Jan. 5	1	35.45	7.09	Jan.	0.46	July	21.3	128	97	74	194	s
Kosmos	Lewis.....	775	8	49.7	99	July 31	13	Jan. 5	8	49.28	10.67	Jan.	0.65	July	81.5	155	109	227	29	ne
La Center	Clarke.....	250	17	47.8	95	July 31	15	Jan. 5	17	46.72	8.29	Nov.	0.62	Aug.	23.9	158	105	171	89	sw
Lone Tree	Chehalis.....	9	5	50.4	80	July 31†	27	Jan. 5†	5	76.65	18.88	Jan.	1.62	July	7.0	194	58	213	94	nw
Mt. Pleasant	Clallam.....	500	3	46.2	90	July 20	17	Mar. 20	3	25.16	6.67	Nov.	0.38	July	22.5	109	92	147	126	....
North Head	Pacific.....	211	12	49.9	84	Sept. 11	28	Jan. 5	12	47.89	9.27	Jan.	0.97	Aug.	1.3	188	89	98	178	nw
Oiga	San Juan.....	50	24	49.0	80	Aug. 1	20	Jan. 19	24	28.93	6.06	Jan.	0.51	Aug.	9.0	107	112	132	121	sw
Olympia	Thurston.....	45	36	50.1	95	July 19†	16	Jan. 5	36	43.66	9.57	Nov.	0.62	July	18.5	145	114	92	158	sw
Port Crescent	Clallam.....	259	19	45.5	86	July 19	22	Jan. 5†	19	32.50	9.05	Nov.	0.66	Aug.	14.3	166	47	159	159	s
Port Townsend	Jefferson.....	80	22	49.3	86	July 21	24	Jan. 12†	24	18.37	2.88	Nov.	0.73	Aug.	2.1	124	122	60	183	nw
Queets River	Jefferson.....	16	3	49.0	83	Aug. 21	23	Jan. 5	3	....	20.51	Nov.	....	....	12.2	....	106	99	154	nw
T5S6 Quinalt	Chehalis.....	300	7	50.1	100	July 31†	21	Jan. 5	7	125.50	26.90	Nov.	1.48	Aug.	19.5	187	102	175	88	w
Seattle	King.....	248	23	50.6	88	Aug. 1	22	Jan. 5	23	24.59	4.89	Jan.	0.45	Aug.	16.2	141	68	109	188	s
Sedro Woolley	Skagit.....	38	17	48.9	88	Aug. 10	13	Jan. 19	17	45.48	8.92	Jan.	1.36	April	....	166	131	103	131	....
Skagit Power Dam	Whatcom.....	510	4	47.5	100	Aug. 1	1	Jan. 19	4	67.71	13.31	Nov.	1.77	Aug.	....	155	166	39	160	....
T1S1 Snohomish	Snohomish.....	55	20	50.3	93	Aug. 21	10	Jan. 19	19	42.75	7.92	Nov.	0.73	April	....	135	202	51	111	w
T4 Snoqualmie Falls	King.....	410	13	50.3	100	Aug. 1	16	Jan. 5	15	45.15	8.74	Jan.	0.69	Aug.	34.0	191	162	13	190	....
South Bend	Pacific.....	140	19	....	....	....	18	Jan. 5	19	80.63	18.19	Jan.	1.68	July	....	186	129	119	117	w
Sumner	Pierce.....	77	6	49.2	92	July 22†	13	Jan. 5	6	33.72	7.76	Jan.	0.50	July	18.4	154	98	84	183	n
T3 Tacoma	Pierce.....	213	28	49.9	90	Aug. 1	18	Jan. 5	28	33.20	7.44	Jan.	0.55	July	27.5	142	54	125	186	sw
Tatoosh Island	Clallam.....	86	29	48.4	73	July 20†	26	Mar. 19	29	78.26	15.06	Nov.	0.94	Aug.	8.4	199	68	123	174	e
Vancouver	Clarke.....	100	39	51.8	96	July 31	17	Jan. 5	39	33.36	5.91	Nov.	0.27	July	14.7	147	96	127	142	nw
T1S1 Vashon Island	King.....	40	25	49.4	83	July 22†	21	Jan. 5	25	29.21	5.85	Jan.	0.44	Aug.	7.5	179	134	52	178	s
Washougal, near	Skamania.....	650	14	50.7	93	July 31	19	Jan. 5	14	58.92	9.08	Jan.	0.68	July	22.5	....	151	67	147	w
Yacolt	Clark.....	850	....	....	....	....	....	....	1	76.79	14.87	Jan.	0.85	July	46.2	....	155	156	158	s
T1 Yale	Cowlitz.....	375	7	50.2	100	July 31	16	Jan. 5	7	78.11	17.83	Jan.	0.59	Aug.	37.5	163	119	67	178	sw

Figures following name of station indicate number of days missing from record, and when accompanied by letters, indicate division of table to which figures apply, e. g., four days missing from temperature record; H, highest temperature; L, lowest temperature; R, range of temperature; P, precipitation; S, sky; W, wind. † Other dates also.

NORTHWESTERN COUNTIES

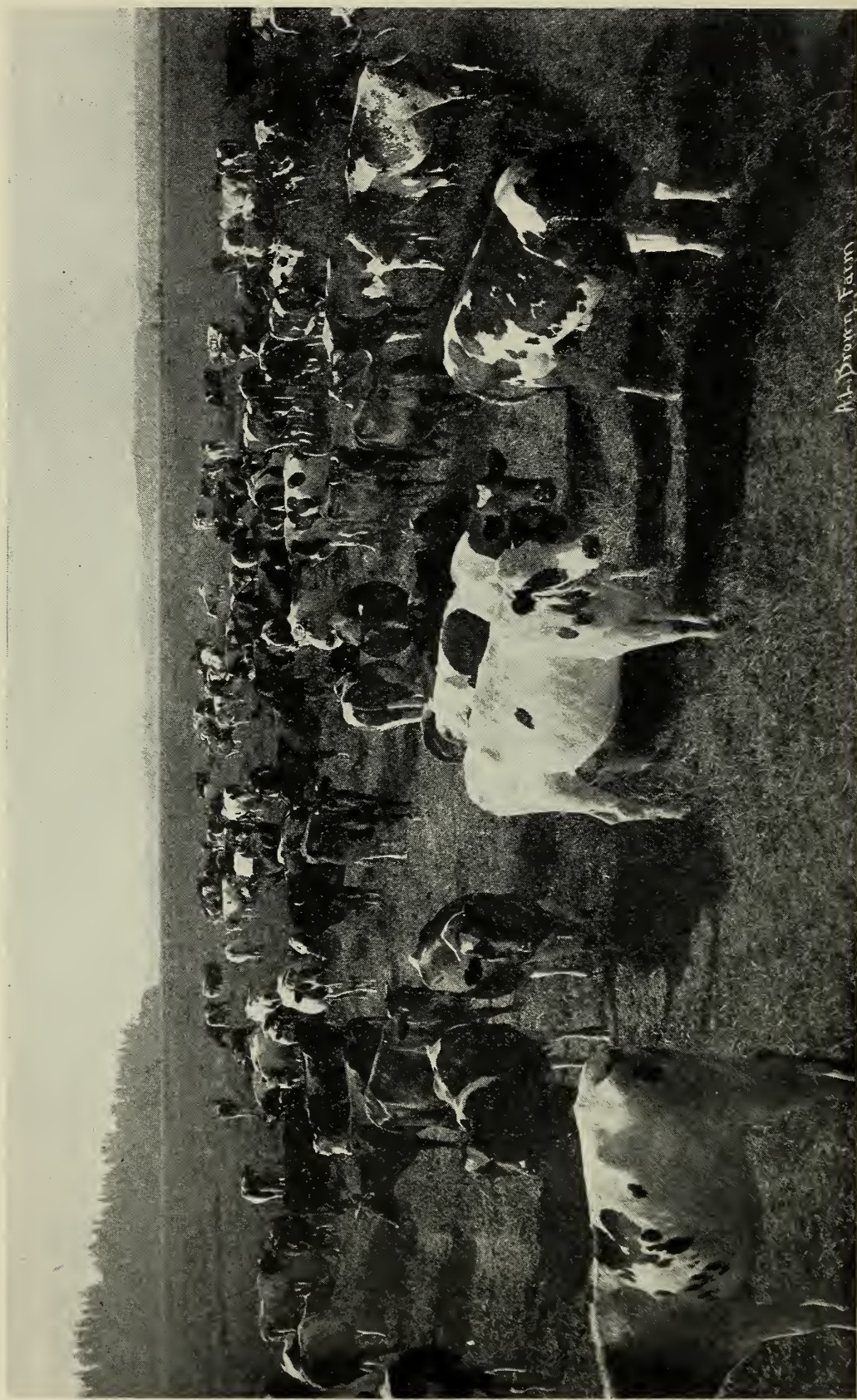
The northwesterly portion of the State of Washington consists of four counties; Whatcom and Skagit, two of the largest counties in the state; and San Juan and Island, two of the smallest. These four counties, comprising an area of about 4,242 square miles, possess a population of 92,678 people and an aggregate total value of all taxable property of \$130,886,251.00.

In point of resources, climate, rainfall, soil, occupation, markets, etc., these several counties approach a degree of great similarity; while the common interests, due partly to location, tend to unite the people still more in their efforts to develop the wonderful resources that as yet have been scarcely touched.

PHYSICAL FEATURES.

The northern line of Whatcom county forms the boundary line between the United States and Canada, while its southern line separates it from Skagit county. These two counties are about the same in width, length and area, although Whatcom has a much greater population. Both have for the western boundary the beautiful waters of the Gulf of Georgia and the San Juan archipelago; while their eastern limits extend well into the Cascade mountains, which form a kind of backbone to the entire state. Skagit is particularly fortunate in possessing the largest and longest river in western Washington. This river, named for the county through which it flows, drains a country extending from the western slope of the Cascade range clear to the sound and containing thousands of acres of logged-off lands close to well developed farms that are famous for their wonderful productiveness. Whatcom county possesses several smaller streams, the largest of which is the Nooksack, flowing through quite an expanse of logged-off area.

Lying to the west and southwest of the above mentioned counties, well out in the straits and extending southward into Puget Sound, are many islands, large and small, known as the



A DAIRY HERD WAITING FOR THE MILKER.
Photo by Curtis & Miller.

San Juan archipelago, part of which belong to Skagit and Whatcom counties but by far the greater number of them forming the counties of Island and San Juan. Mountain, valley, stream, and inlet combine with soil and climate to make this region one of the most enchanting in the world and it will no doubt increase in fame as its beauties become better known. The largest islands are San Juan, Orcas and Lopez in San Juan county, and Whidby and Camano in Island.

RESOURCES AND INDUSTRIES.

The main resources of this region consist of its vast beds of minerals, great forests of timber, innumerable shoals of fish, stone and lime quarries, and wonderfully rich soil; offering to the settler, besides the splendid agricultural advantages, rare opportunities to engage in various kinds of manufacturing, lumbering, stock raising, dairying, poultry raising, mining, and dozens of other minor occupations. In Skagit county is found one of the largest Portland cement factories in the world, which gets its supply of lime from the San Juan islands, where an inexhaustible store of this is found.

LOGGED-OFF LANDS.

While most of the land in Island county has been logged off, there still remains in the other counties vast areas of standing timber, made up chiefly of fir, cedar, spruce, larch and hemlock. Many mills established in various parts are rapidly clearing these lands of their most marketable timber, leaving them in the so-called logged-off condition. Much of this land is as good as the very best in the world and can be purchased at nominal prices, often as low as \$15 per acre. Once put into shape for the plow they will spring into values ranging from \$100 to \$200 per acre, according to location and character of soil. Upon these lands, which are within reasonable distance of good markets and with excellent transportation facilities, can be raised splendid crops that include nearly all varieties of garden and farm products known to the temperate zone, chief of which are hay, potatoes, oats and fruits. The fruits include apples,

pears, prunes, and all kinds of berries, which are in their element here, while some of the lands in the LaConner flats have been known to produce as high as 173 bushels of oats to the acre. In fact all vegetation in this section is very luxuriant.

Other products that are rapidly becoming important are rye, wheat, grapes, nuts, honey, flax, and bulbs; the United States government at the present time maintaining near the city of Bellingham an experiment bulb farm, the present success of which points to this region as an ideal place for the further and more profitable development of this industry.

Too much stress cannot be laid on the poultry and dairying through this section and in every county. Cows and chickens do not mind stumps, but seem to enjoy all the more the juicy grass growing within the shade of these landmarks. For the man taking up a farm of logged-off land this industry answers the question of what he shall do for a living while he is clearing the land for agriculture. Even after he has the land totally cleared he will still be lured into the pleasant occupation of caring for his cows and chickens, especially when he considers the natural adaptability of all western Washington for these industries and the splendid prices he gets for all that can be produced. Fortunes have been made this way.

MARKETS AND TRANSPORTATION.

The next thing that interests the outside inquirer, after the agricultural possibilities, pertains to the marketing facilities. One has only to look at the map and see how these large counties are well traversed by railroads, including the Great Northern, Northern Pacific, Bellingham & Northern, Pacific Northwest Traction, as well as many spurs and logging roads. These roads bring the smaller towns in easy reach of the larger ones, such as Bellingham, Blaine and Sumas in Whatcom county, and Anacortes, Mt. Vernon, Sedro Woolley and Burlington in Skagit county; besides making it possible to reach the other great shipping centers to the south, as Everett, Seattle and Tacoma. Good wagon roads traverse all parts, and both county and state

are constantly endeavoring to build more and to improve those already in existence.

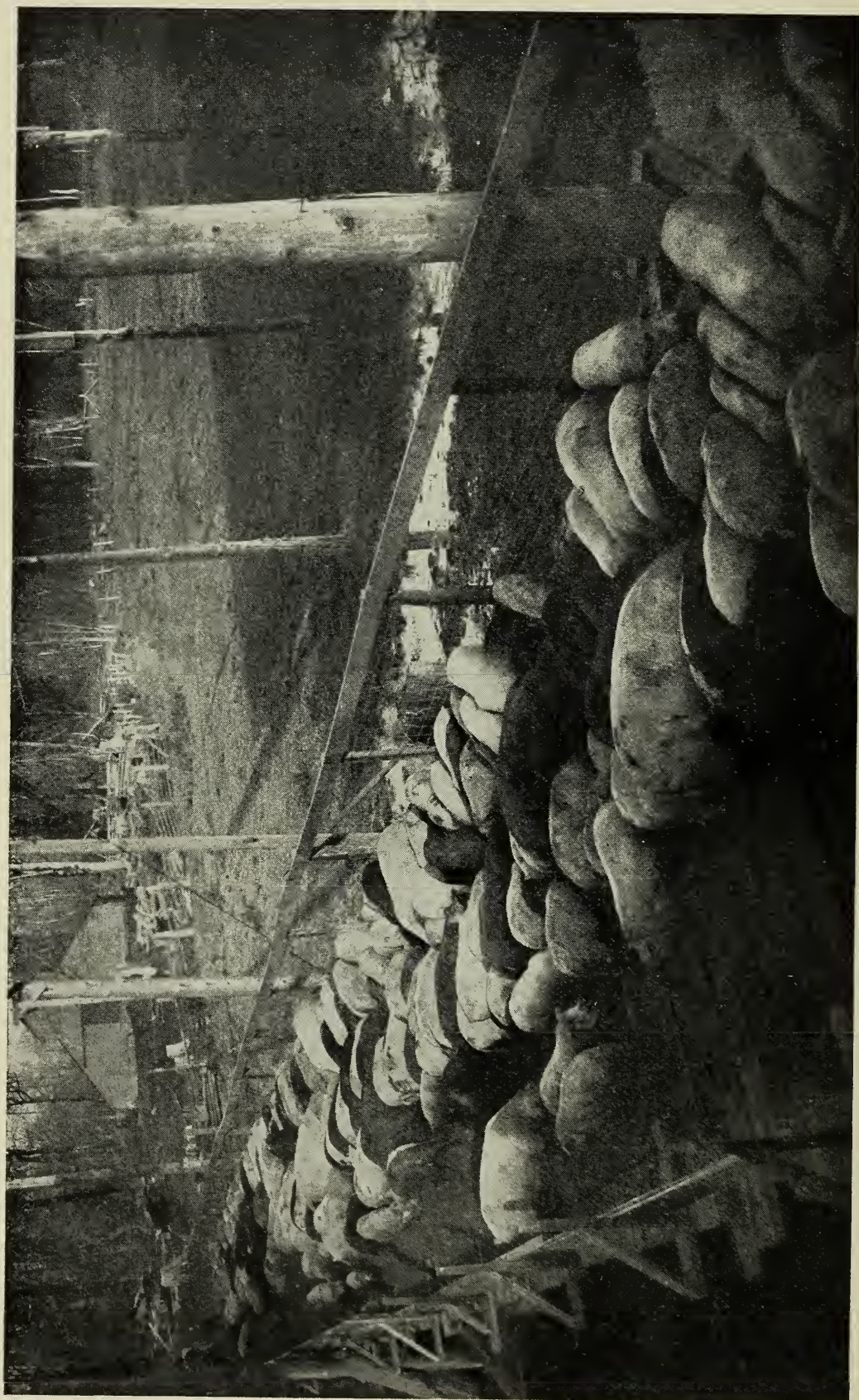
Upon the islands the largest towns are Friday Harbor, the county seat of San Juan county; and Coupeville, the county seat of Island county. Many steamers plying in all directions connect these towns, as well as the other smaller ports on the islands, with the various markets on the mainland, so that the lack of railroads is scarcely noticed; as any day the products of one locality can be shipped to another, either on the islands or on the mainland. As for Whidby island it is quite probable that it will very shortly be connected by means of a bridge built over Deception pass to Fidalgo island, which is already connected by rail with the mainland of Skagit county.

There is no doubt that the most particular of mankind will find in this region possessing a mild, equable climate, inspiring scenery and enchanting waters, suitable opportunity for the complete enjoyment of life in its many phases.

SNOHOMISH, KING AND PIERCE COUNTIES

The counties of Snohomish, King and Pierce, front on the eastern shores of Puget Sound and comprise within their combined areas one of the most thickly settled and highly developed sections of the state. The rugged summits of the Cascade mountains constitute their eastern borders. Between the mountain tops and tidewater, there is found a wide variety of soil and climatic conditions, affording the homeseeker a corresponding range of choice in the matter of selecting a location.

This district is well watered by rivers and mountain streams, including the Stillaguamish, Skykomish, Snohomish, Snoqualmie, Cedar, White, Duwamish, Puyallup and Nisqually rivers. The alluvial valley lands of all these streams are dotted with well kept farms, orchards, truck gardens, and pastures, and the uplands, where the timber has been removed, are also rapidly being brought to a state of productive cultivation.



HOGS—ONE OF THE BEST CROPS ON LOGGED-OFF LAND.
Photo by Curtis & Miller.

AGRICULTURAL ACTIVITY.

Dairying is a leading industry and has proven to be the avenue to success for hundreds of prosperous farmers. There are about 40,000 milch cows in the three counties, constituting about one-fourth of the total number in the state. Several large milk condenseries can the product not otherwise disposed of.

The more fertile bottom lands are given over quite largely to truck gardens, the growers finding a ready market in the cities for all they can raise. Strawberries, raspberries, blackberries, loganberries and other small fruits give exceptional results and all of them are sure and profitable.

Of late years, many orchards of apples, pears, plums and cherries have been developed and horticulture has become an established and profitable pursuit.

SOILS.

The soil of the river bottom lands is made up largely of alluvial deposits and in many places is of extraordinary fertility and productiveness.

That of the uplands is of glacial origin, and occurs in varying depths and of different degrees of fertility. Speaking of the rolling hills and ridges of this section, the report of the United States Soil Survey, 1910, says in part:

"The soil, to an average depth of 10 to 15 inches, consists of a light-brown to reddish-brown sandy loam, containing a large number of small, rounded iron concretions, which weather rapidly on being exposed on the surface, often becoming soft enough to crush between the fingers. The presence of these small concretions has given the soil the local name of "shot clay." The soil also contains a large amount of rounded gravel varying in size from coarse sand particles to pieces 4 and 5 inches in diameter. The gravel content of the soil is always large, but there is not a sufficient quantity to cause the soil to be classed as a gravelly loam, but rather as a sandy loam containing enough gravel to influence its texture to a considerable extent.

"The subsoil consists of a mass of rounded glacial gravel embedded in a medium to coarse gray sandy loam. The texture of the subsoil frequently varies considerably over very limited areas owing to the heterogeneous character of the deposits. Gravel,

coarse sand, fine sand, or silt, often occur in more or less extensive beds or pockets or in layers varying from 1 to 5 feet in thickness, and sometimes the subsoil has the appearance of being stratified. Where the topography is rolling or gently rolling, and where small areas are cultivated very intensively, profitable yields of potatoes, fruits, and strawberries and other small fruits are secured. Where very intensive methods of cultivation are practiced this soil has produced large yields of strawberries, and on Vashon island it is considered well adapted to the growing of this crop. Only a very limited area of this soil is under cultivation, the greater proportion being still in the logged-off state, while larger areas are still covered by the original forest growth."

POPULATION AND CITIES.

The total population of the three counties under discussion, according to recent estimates of the U. S. Census Bureau, is 574,962, of which 448,495 are found in the cities of Seattle, Tacoma and Everett.

This large urban population is engaged in a great variety of industrial and commercial pursuits, and they readily consume the products of the agricultural districts. The local farmers, however, are unable to meet the demand, and in consequence, the market requirements are met in large part by enormous importations of vegetables, fruits, eggs, poultry, dressed meats and dairy products.

Well developed systems of highways traverse the district in all directions, and in addition to the great transcontinental railroads which center in the cities, electric lines reach out into the farming sections, affording the very best of transportation facilities.

UNDEVELOPED LANDS.

Notwithstanding the favorable conditions just noted, there are vast areas of undeveloped lands in each of the three counties, awaiting the coming of industrious men who can appreciate the opportunities presented. On ten acres of well selected land a family is sure of a comfortable living, while those desiring to farm on a large scale, will find every advantage for gaining a substantial competence.

CLALLAM, JEFFERSON AND KITSAP COUNTIES

Clallam and Jefferson counties occupy the north half of what is known as the Olympic peninsula. Both of these counties have an extensive frontage on the Pacific ocean. The northern border of Clallam county is formed by the south shore of the Straits of Juan de Fuca.

Kitsap county lies to the east of Jefferson, being separated from it by a long inlet known as Hood's canal. The county is rather triangular in shape; its eastern border fronting on Puget Sound and lying directly west from Seattle and King county. These three counties are as yet only partially settled, and in their undeveloped condition offer exceptional opportunities to the homeseeker.

INDUSTRIES.

For many years lumbering has been the chief industry of all three counties. This district contains one of the largest and most compact bodies of standing timber available in the entire country; this being particularly true of Jefferson and Clallam counties.

Kitsap county was the scene of the earliest logging and lumbering operations in the state, and much of its best timber has been already exploited. Some of its lumber mills, however, are among the largest in operation anywhere in the country.

Clallam and Jefferson counties have developed the dairying industry to an important degree, the logged-off lands being rapidly seeded to pasture as the operations of the lumbermen have made them available. In the valley of the Dungeness river in Clallam county, there is at present one of the most highly productive agricultural sections in the state. This particular district was settled years ago, and along the valley for miles there is one continuous succession of beautiful farms in a high state of cultivation and indicating something of the possibilities presented in other portions of this district.

Kitsap county being favorably located with reference to Seattle markets, has developed an important gardening and fruit growing industry and with this is coupled poultry raising in which a great many of the farmers are engaged.

The soil of these three counties is particularly well adapted to the growing of hay, grains and vegetables, mangles and other root crops suitable for feeding purposes; and where the conditions are favorable, the yields of such crops are enormous. In many places the logged-off lands are cleared of the undergrowth and down timber left by the loggers, and seeded to grass without removing the stumps. In this way excellent pasturage is secured at a nominal expense, and the farmers thus having a means of living provided are enabled to take their own time in completing the clearing of their lands. Small fruits, including all kinds of berries, are raised here in abundance and find a ready market in the nearby cities.

TRANSPORTATION.

With the exception of a few miles of railroad extending south from Port Townsend to Quilcene in Jefferson county and the recently constructed portion of the Seattle, Port Angeles & Lake Crescent, a portion of the Milwaukee Railway System in Clallam county, there are no railroad lines in operation in these counties. The great store of undeveloped timber that still remains in them, however, has attracted the attention of all the great transcontinental lines now having terminals in the large cities on Puget Sound.

Surveys have been run through the district, and it is a matter of only a short time until an era of tremendous railroad building activity will be inaugurated throughout this section. Pending the completion of this work of railroad construction, which has already been started, there are splendid opportunities offered for securing good lands at exceptionally reasonable prices which will greatly enhance in value.

For the present, the district is dependent largely upon steamers for its transportation facilities. Regular lines of

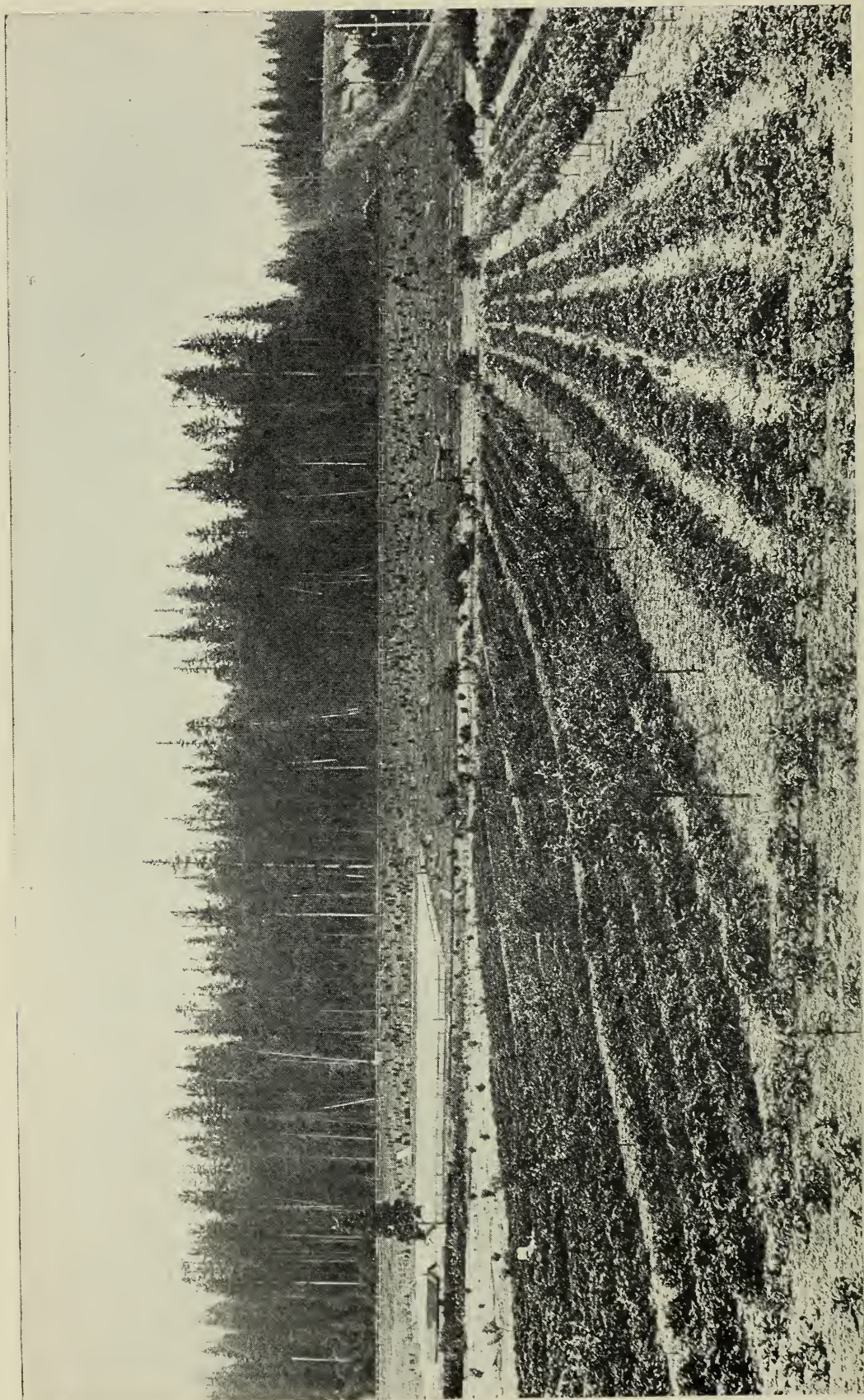
boats reach the various ports in the three counties, and afford cheap and quick means of communication with all the Sound cities. At Bremerton, a growing and prosperous city in Kitsap county, is located the United States navy yard of Puget Sound. On this account Kitsap county has an advantage in the way of transportation; fast steamers making many trips between Seattle and Bremerton each day.

AGRICULTURAL LANDS.

Notwithstanding the fact that a great area of standing timber still remains in this district, there are thousands of acres of logged-off lands lying in an undeveloped state and ready now to be cleared and placed under cultivation. In their raw state these lands can be purchased from \$20.00 per acre up, depending upon the class of soil and their proximity to markets. New settlers are going on these lands continually, and while the work of clearing and rendering them suitable for crop production involves a great deal of labor and considerable expense, yet there is no need for discouragement as the farmer will soon be more than reimbursed for the outlay entailed. Ten acres of this land properly cleared and devoted to intensive farming is sufficient to keep a family in comfortable circumstances. Poultry raising and dairying are two of the most profitable lines of industry in which the people engage. The markets of the cities of Puget Sound are always clamoring for fresh eggs and butter, and there is no possibility for an over-production of these commodities.

OTHER ADVANTAGES.

In addition to the openings offered throughout this section for profitable farming there is added the attraction of splendid scenery with unsurpassed opportunities for hunting and fishing. Kitsap county alone has the largest extent of water frontage of any county in the state, and Clallam and Jefferson, likewise, have many miles of salt water shore line. In the valleys and uplands are grouse, pheasant and other game birds in abundance, and among the lofty peaks of the Olympic mountains will be found all manner of big game to attract the daring hunter.



A FARM OF ACTUAL PROFITS AND FUTURE POSSIBILITIES.
Photo by Frank Palmer.

Many summer resorts are situated around the lakes and on the beaches throughout the district, and hundreds of campers and summer residents flock to these localities from the cities. These temporary visitors do not come exclusively from the nearby commercial centers. The summer climate and opportunities for out-of-door sports are widely known and appreciated in all the Pacific coast cities and the number of summer residents from distant points is increasing annually.

TOWNS AND CITIES.

The lack of transportation and the consequently slow development of the district has operated against the building of any large commercial centers. Port Townsend, the county seat of Jefferson county, is the largest city in the three counties and has a population of 5,000 people. It is a sub-port of entry for the Puget Sound customs district, and is a substantially built and well-located city. Port Angeles, the county seat of Clallam county, is situated on a well protected harbor on the Straits of Juan de Fuca. One of the largest and best lumbering and shingle industries in the world is located here. It is the center of an important fishing industry and is also the shipping point and distributing center for a large tributary country. The Seattle, Port Angeles & Lake Crescent railroad is now in course of construction. Port Angeles is also a sub-port of the Puget Sound customs district.

Bremerton, already mentioned, is the seat of the United States navy yard and is the largest town in Kitsap county. It is a thriving city with excellent prospects for future growth. The government expenditures amount to hundreds of thousands of dollars annually and to this source of prosperity is added the trade of the surrounding section which is being rapidly developed.

SCHOOLS.

As elsewhere throughout the state, excellent school facilities are provided in all of the populated sections of the three counties, and for higher educational purposes, the University of Washington, located in the city of Seattle, is available.

SOUTHWEST COUNTIES

Chehalis, Mason, Thurston, Pacific and Lewis constitute what may be termed the upper group of southwest counties. All of the counties named have numerous characteristics in common, and with the exception of Lewis county, each one has a considerable length of shore line on the salt water.

Mason and Thurston counties are located along the southern reaches of Puget Sound, which body of water terminates in a series of inlets spread out somewhat in fan-shaped fashion. The lower lands along these estuaries were long ago cleared of their first timber growth, and the lumbermen are now penetrating deep into the interior sections of the counties. Considerable progress has been made in converting the logged-off lands into farms, orchards and dairy ranches, but there still remain thousands of acres of such lands ready for clearing and tillage.

Chehalis and Pacific counties front on the Pacific ocean. Grays Harbor, in Chehalis, and Willapa Harbor, in Pacific, extend their friendly arms to receive the lumber carrying vessels which are constantly loading with cargoes destined, in large part, for foreign ports. Chehalis county is drained by the river of the same name, and the lower valley lands are rich and well adapted to every variety of farming. The soil of the valley regions is made up of alluvial deposits, combined with decayed vegetation, and produces abundantly of grass crops, fruits and vegetables. There are extensive cranberry marshes in the county which are being profitably developed.

The Willapa river is the chief stream of Pacific county, and for a distance of more than 30 miles above its mouth the valley through which it flows is made up of fine farming lands. Some of these lands have been cultivated for a great many years and the crops annually produced testify to their great fertility and productiveness.

Of recent years the uplands have received more attention and, under careful management, are made to return excellent yields of potatoes, rutabagas, grains, berries and other products.

Lewis county lies directly east of Pacific and south of Thurston. It is one of the few land-locked counties of western Washington, but that fact has not operated in any particular against its rapid development. The Cowlitz and Lewis rivers water the county and it is along these streams that the greatest agricultural activity has occurred. In general the lands of the county divide themselves naturally into bottom lands and uplands as is the case with other sections of western Washington. Originally one vast forest, which has rapidly been cut away by the loggers, the county at present offers a large and constantly increasing area of lands adapted to a wide variety of agricultural purposes. These lands began coming on the market years ago and in the valleys of the two rivers mentioned, as also along the lesser streams of the county, there will be found hundreds of comfortable, well-kept farm homes.

Hay, oats, and other grains are staple crops from the logged-off lands, while berries, orchard fruits, and all kinds of vegetables are grown in abundance. The production of flax for fiber purposes is another young industry which promises to become more important in the future.

MARKETS.

This entire group of counties is well provided with home markets for all the various products of their land. The cities of Aberdeen and Hoquiam, in Chehalis county, are important lumber, milling and shipping centers, having a combined population of 28,760. Pacific county has two thriving towns in Raymond and South Bend; and Mason county, in addition to the county seat, the town of Shelton, markets its produce in the numerous logging and lumber camps scattered throughout the county. It has easy access by boat to the cities of Tacoma and Olympia. The last named city is the county seat of Thurston county and the capital of the state, and has a population of



CHICKENS DO WELL IN ALL PARTS OF THE STATE.

10,000. It is a city of handsome homes, substantial business structures and fine public buildings. The new Temple of Justice to house the state supreme court is now occupied, and a capitol building to cost several millions of dollars has been authorized by an act of the state legislature. In Lewis county there are the bustling cities of Centralia and Chehalis, both thriving manufacturing and industrial centers constantly demanding the products of the farms and ranches.

TRANSPORTATION.

With the exception of Mason county, this section is well provided with railroad transportation, and Lewis county is particularly well favored in this respect. Its two important cities and many of its lesser communities are on the double-tracked road of the Northern Pacific line, which, under traffic arrangements, also carries the trains of the Oregon & Washington and Great Northern systems between Seattle and Portland, Oregon. Pacific, Chehalis and Thurston counties are all served by branch lines of the Northern Pacific system, and others of the great transcontinental lines are building into this territory. The Northern Pacific main line also passes through Thurston county, reaching several of its smaller communities. Mason county has several important logging railroads, but is dependent for general transportation upon steamers plying on Puget Sound.

OPPORTUNITIES.

This group of counties constitutes the heart of southwestern Washington, and is just now undergoing unusual development. Its lands are being opened up and brought on the market for settlement and it has before it every promise of future growth and prosperity. Good schools and good roads will be found wherever the rural districts have been settled up, and in the cities all the modern utilities, such as electric light and power, gas, public water systems, street railways, etc., are established. There is a wide choice open to the homeseeker who is looking for land, and he may make his selection to suit his own purposes and financial resources.

COLUMBIA RIVER SECTION

Facing on the expansive Columbia river of historic fame, and with rich lands extending for over 200 miles along the north bank of that wonderful river, lie the five most southerly counties of western Washington, viz.: Wahkiakum and Clarke, two of the smallest counties in the state; and Cowlitz, Skamania and Klickitat, three of the larger. Within this area are some of the oldest settlements in the state of Washington, besides Vancouver barracks, situated at Vancouver, Clarke county, one of the oldest and most beautifully located of the United States military posts.

Of the total valuation of all taxable property amounting to \$126,451,029, all except \$16,372,157 is in the three counties of Clarke, Cowlitz and Klickitat; which counties also contain 61,129 people, of the entire population of 68,131.

RESOURCES.

Altogether these several counties contain a total area of 5,564 square miles, or 3,560,960 acres, including about 260,000 acres of improved lands and the remaining 3,300,000 acres consisting chiefly of uncut timber and unimproved logged-off lands, waiting for the energetic worker to finish clearing and awaken its fertile soils into prosperous life-sustaining farms. Every year the report of the tax commission shows a decrease in the amount of timber lands, which indicates a proportionate increase in the logged-off area. It is only a matter of time when these sparsely settled lands are going to support many times the population located on them at present, and in a state of prosperity and contentment.

All of this section is exceptionally well drained, as it contains many streams which have their sources in the hills and mountains to the north and northeast, finding their way into the Columbia and Cowlitz rivers in a southwesterly direction. There is plenty of rainfall and the climate is diversified enough

to suit all, ranging from a moist, mild climate in the western portion to a dryer one in the eastern parts.

Besides the timber and rich soil, other resources of this section consist of mineral deposits and the Columbia river fishing. The new settler who finds it necessary to work for others for a time can take his choice of working in the fish canneries, mines, saw mills or lumber camps; or engaging as a farm hand. The natural resources are practically indeterminate; for denuding the land of its forests simply means the development of its fertile soil; while the supply of fish and output of its mines will probably be only ended by the termination of time.

LOGGED-OFF LAND ENTERPRISES.

Within the parts of the country that have been logged-off many different enterprises may be taken up, chief of which are dairying and poultry raising. The logged-off lands make ideal pasture and many thousands of pounds of butter are produced here annually. Clarke county alone has 10,298 milch cows, which is the fourth largest number for any county in the state, the other three being King, Snohomish, and Lewis, all in western Washington. Hogs, too, do especially well; Klickitat having 11,537, or the third largest number of all counties in the entire state. Many of these lands also afford splendid opportunity for general stock raising. The poultry value as equalized by the county boards of western Washington for the year 1914 amounted to \$286,119, which is only a beginning compared with what will be raised here in the years to come.

Besides the agricultural products that are common to most parts of western Washington, such as hay, potatoes, oats, etc., this section is particularly well adapted to the raising of fruits, nuts, and grain. Klickitat will rank with the best in its apple and wheat lands, while Clarke is making quite a specialty of prunes, English walnuts, and filberts. Cowlitz, too, raises splendid fruits and the soil is very productive of grass for grazing as well as for hay. Throughout this section will be found also splendid crops of vegetables, berries, and hops.



HARVESTING MANGLES IN MIDWINTER.

TRANSPORTATION AND MARKETS.

The markets and transportation facilities are exceptionally good. Besides having many miles of railroad track, including the Great Northern, Northern Pacific, O.-W. R. & N., the Spokane, Portland & Seattle, and Chicago, Milwaukee & Saint Paul, there are about 250 miles of navigable river, including the Cowlitz, which carries steamers for many miles down to the Columbia, where will be seen ocean vessels on their way to or from the important river ports. On the other side of the river is more railroad trackage, which can easily be reached by ferries or other river boats plying between the various points.

These many ways of transportation quickly carry all that can be produced to the many towns in this section, chief of which are Kalama, Kelso and Castle Rock, in Cowlitz county; Vancouver, Camas, Yacolt and Washougal, in Clarke county; Goldendale, White Salmon, in Klickitat county; Skamokawa, and Cathlamet, in Wahkiakum county; and Stevenson, in Skamania county; while many trains passing in each direction on the main lines make it very easy to ship large quantities of the chief products to the greater markets on the coast or to the eastern states. Excellent prices are always realized.

Land in these counties can be purchased at very reasonable prices and on easy terms, especially if the purchaser wishes to make a home on his land.

In point of enterprise, educational advantages, etc., the people in this section are not behind the others who make their home in western Washington and the inspiration that must surely come from the grand scenery of the rivers and mountains makes this section a real home for mankind.

ACTUAL CROPS PRODUCED AND VALUE AS ESTIMATED BY THE WORKERS THEMSELVES

Regarding the actual crops produced and the resulting profits the following reports from individual owners and workers of logged-off lands in different parts of the state will give the enquirer a fair and unbiased view. These reports were sent on request from this office for conservative estimates of what could be done with a few acres of such land. Although answers were not received from all, nevertheless it is felt that those responding have tried to be as fair as possible in their estimates. Very few of these men have land for sale. They are farmers who are content to make their living off the products of the soil and have no other motive in reporting than a desire to accommodate this office and to help, if possible, those on the outside who are seeking reliable first hand information. Each of these statements represents the results of a single year.

From a study of these experiences the following facts appear:

1. The tracts vary in size from 10 to 320 acres; in a few cases smaller tracts being worked, sometimes even as small as two acres.

2. The income is not always in proportion to the size of tract but rather to intensity of farming and choice of crops, as well as proper marketing of same.

3. The character of the soil includes, chiefly, clay and sandy loam, as well as some beaver dam and bottom lands.

4. The chief crops consist of hay, oats, and potatoes; the land producing from two to four tons of hay per acre, from two to six tons of potatoes, and from 75 to 125 bushels of oats.

5. Practically all carry on a successful dairy and poultry industry, which in many instances is the main source of income.

6. As many as one-third raise hogs successfully and obtain quite an income therefrom.

7. Besides the main crops mentioned above the following are important and in some sections constitute the chief crop, giving splendid incomes to many people: Fruits, including apples, pears, plums, prunes, cherries, strawberries, gooseberries, raspberries, loganberries, etc.; vegetables, including most of the truck common to a temperate climate.

8. Rarer products which bid fair to become more important in the future are flax, kale and corn, as well as honey, turkeys, and geese.

ALBERT GROSSMAN, Ocosta, Chehalis county; size of tract, 15 city blocks; soil, tideland and some upland.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Clover and timothy.....	8 acres.....	18 tons.....	\$180 00
Potatoes	1 acre	3 tons.....	75 00
Oats	2 acres.....	6 tons.....	72 00
Raspberries (5 rows 100 ft. long).....		300 quarts.....	25 00
Total.....			\$352 00

Other sources of revenue:

Keeps 20 cows—Value of dairy products.....	800 00
Keeps 100 chickens—Value of products.....	25 00
Cattle sold	200 00
Hogs, sheep, veal, etc., sold.....	75 00
Horses sold	110 00
Grand total.....	\$1,562 00

CHARLES IPE, R. F. D. No. 1, Centralia, Lewis county; size of tract 7 acres; soil, sandy clay to depth of eight feet, underlaid with gravel. Originally covered with vine maple, fir and cedar; some stumps six and eight feet through. Mr. Ipe says he is getting along in years and is not trying to make as much as in former times.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	2 acres.....	7 tons.....	\$75 00
Oats	3½ acres.....	360 bushels.....	175 00
Garden and small fruit... ..	1½ acres.....		300 00
Total.....			\$550 00

Other sources of revenue:

Keeps 1 cow—Value of products.....	90 00
Keeps 25 chickens—Value of products.....	50 00

1 veal calf sold.....	\$10 00
250 pounds of honey sold.....	35 00
Earned at carpenter work.....	450 00

Grand total.....\$1,185 00

JOHN W. McCUTCHEON, R. F. D. No. 1, Chehalis, Lewis county; size of tract, 168 acres; soil, 80 acres clay loam, balance hill and swamp.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Barley	6 acres.....	350 bushels.....	\$175 00
Oats	12 acres.....	1,050 bushels.....	420 00
Wheat	12 acres.....	360 bushels.....	360 00
Hay	26 acres.....	100 tons.....	1,000 00
Pasturage	112 acres—enough for 50 cattle....		300 00

Total.....\$2,255 00

Other sources of revenue:

Keeps 27 cows—Value of products.....	2,400 00
Keeps 50 chickens—Value of products.....	120 00
Sold 12 cows.....	985 00
Sold veal	150 00
Sold turkeys	40 00

Grand total.....\$5,950 00

G. M. POWELL, Aberdeen, Chehalis county; size of tract, 520 acres; soil, shot clay hills, sandy loam bottoms.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Clover	8 acres.....	30 tons.....	\$300 00
Mixed hay.....	12 acres.....	35 tons.....	350 00
Potatoes	6 acres.....	400 sacks.....	600 00
Garden	½ acre		100 00
Carrots	½ acre	15 tons.....	100 00
Berries			100 00
Cattle growth.....			500 00
Hogs and poultry growth.....			200 00

Total.....\$2,250 00

Other sources of revenue:

Keeps 12 cows—Value of products (Butter).....	600 00
Keeps 70 hens—Value of products.....	250 00
Cattle sold	500 00
Beef sold	85 00
Miscellaneous sales	150 00

Grand total.....\$3,835 00

E. F. SLEETH, Burlington, Skagit county; size of tract, 27 acres; soil, sandy loam.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oat hay.....	5 acres.....	20 tons.....	\$200 00
Clover hay.....	2 acres.....	6 tons.....	60 00
Potatoes	1 acre	200 sacks.....	200 00
Apples	3 acres.....	200 boxes.....	175 00
Plums and prunes.....			25 00
Beets for feed.....	1 acre	40 tons.....	240 00
Corn and fodder.....	1 acre		100 00
Total.....			\$1,000 00

Other sources of revenue:

Keeps 10 cows—Value of products.....	1,200 00
Keeps 100 chickens—Value of products.....	100 00
Cattle sold	200 00
Hogs, sheep, veal, etc., sold.....	70 00
Horses sold	100 00

Grand total.....\$2,670 00

A. J. SCHOLD, Silverdale, Kitsap county; size of tract, 70 acres; soil alluvial.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	25 acres.....	65 tons (hay)....	\$880 00
Potatoes	1 acre	175 bushels.....	90 00
Berries			30 00
Corn	2 acres.....	(Ensilage)....	80 00
Apples			35 00
Vegetables	1 acre		50 00
Total.....			\$1,165 00

Other sources of revenue:

Keeps 18 cows—Value of products.....	\$1,875 00
Keeps 200 chickens—Value of products.....	150 00
Hogs, sheep, veal, etc., sold.....	200 00

Grand total.....\$3,390 00

C. H. NELSON, R. F. D. No. 1, Shelton, Mason county; size of tract, 40 acres; soil, shot clay.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Grain hay.....	4 acres.....	4 tons.....	\$64 00
Potatoes	1 acre	3 tons.....	60 00
Apples	1 acre	52 boxes.....	50 00
Total.....			\$174 00

Mr. Nelson reports an abundance of vegetables and small fruits for table use and to can.

Other sources of revenue:

Keeps 3 cows—Value of products.....	\$150 00
Keeps 50 chickens—Value of products.....	100 00
Cattle sold.....	90 00
Hogs, sheep, veal, etc., sold.....	5 00
Grand total.....	\$519 00

H. YOUNT, Woodland, Cowlitz county; size of tract, 160 acres; soil, heavy clay.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Loganberries	1½ acres.....	95 crates.....	\$116 25
Total.....			\$116 25

Other sources of revenue:

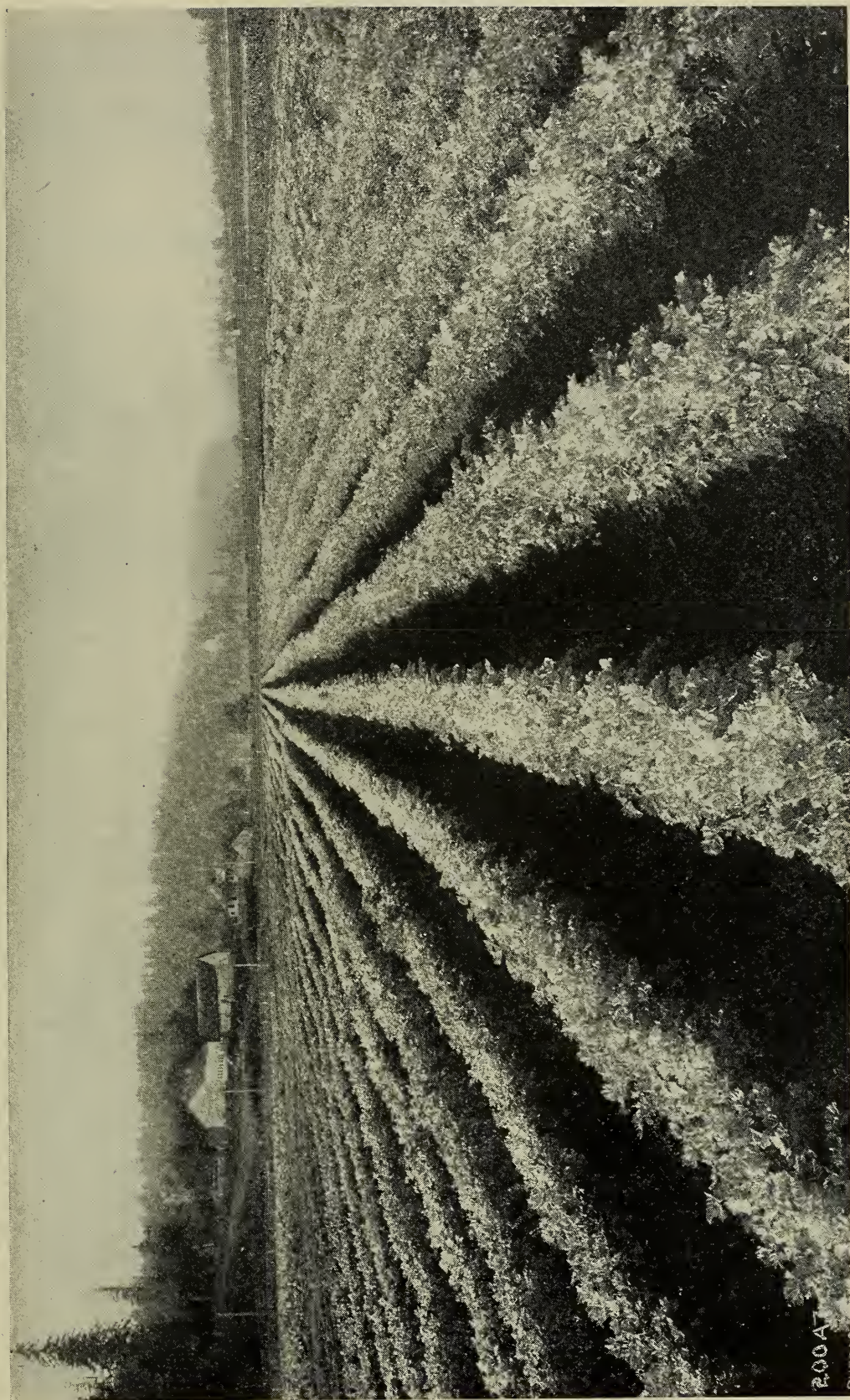
Keeps 7 cows—Value of products.....	890 00
Keeps 125 chickens—Value of products.....	66 00
Hogs, sheep, veal, etc., sold.....	36 00
Miscellaneous sales.....	365 40
Grand total.....	\$1,473 65

JOHN KILKELLY, Kalama, Cowlitz county; size of tract, 200 acres; soil, dark loam.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	30 acres.....	60 tons.....	\$600 00
Potatoes	1½ acre		20 00
Other vegetables			20 00
Total.....			\$640 00
Keeps 15 cows—Value of products.....			198 00
Hogs and veal sold.....			112 00
Grand total.....			\$950 00

D. VAN DER GRIEND, Lynden, Whatcom county; size of tract, 115 acres; soil, muck.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	30 acres.....		\$340 00
Oats	30 acres.....		800 00
Peas	4 acres.....	120 bushels.....	130 00
Total.....			\$1,270 00



CELERY, A VALUABLE CROP ON VALLEY LANDS.
Photo by Curtis & Miller.

Other sources of revenue:

Keeps 15 cows—Value dairy products.....	\$1,320 00
Beef, hogs and veal sold.....	547 00

Grand total.....\$3,137 00

B. C. CRABTREE, Lynden, Whatcom county; size of tract, 200 acres; soil, clay loam.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	75 acres.....	4,500 bushels.....	\$2,250 00
Hay	50 acres.....	100 tons.....	1,500 00
Peas	15 acres.....	200 bushels.....	275 00
Wheat	9 acres.....	280 bushels.....	300 00
Potatoes .....	.....	160 bushels.....	120 00
Orchard	2 acres.....	.....	50 00
Garden	1 acre .....	.....	50 00

Total.....\$4,545 00

Other sources of revenue:

Keeps 14 Jersey cows—Value dairy products.....	1,794 79
Keeps 100 chickens—Value poultry products.....	207 00
Cattle sold	776 00
Horses sold	460 00

Grand total.....\$7,782 79

JOHN H. BATCHELDOR, Monroe, Snohomish county; size of tract, 70 acres; 50 acres river bottom; mostly sedimentary land; 20 acres bench land, some gravel, but mostly light loam; bottom land cleared with stumps left; 15 acres of the bench land has not been cleared.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Timothy and clover.....	15 acres.....	80 tons.....	\$960 00
Potatoes and vegetables..	1 acre .....	.....	200 00
Mixed orchard	2 acres.....	.....	200 00
Oats used as hay.....	2 acres.....	5 tons.....	75 00
12 head of calves.....	.....	.....	132 00
1 colt .....	.....	.....	25 00
Dairy products from 12 cows.....	.....	.....	600 00

Grand total.....\$2,192 00

HENRY BUSCHER, Port Orchard, Kitsap county; size of tract, 80 acres; soil, black loam and sandy clay.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	30 acres.....	75 tons.....	\$750 00
Potatoes	1 acre	345 sacks.....	428 25

Total.....\$1,178 25

Other sources of revenue:

Keeps 1 cow—Value dairy products.....	64 68
Keeps 56 chickens—Value poultry products.....	174 57

Grand total.....\$1,417 50

W. S. TAYLOR, Kamilche, Mason county; size of tract, 100 acres, part cleared; soil, black loam and shot clay, mostly bottom land.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	16 acres.....	1,412 bushels.....	\$790 72
Hay	20 acres.....	80 tons.....	1,600 00
Potatoes	1 acre	7 tons.....	210 00
Rutabagas	1¼ acres.....	30 tons.....	300 00
Apples	2 acres.....	300 bushels.....	180 00

Total.....\$3,080 72

Other sources of revenue:

Keeps 16 cows—Value dairy products.....	800 00
Keeps 30 chickens—Value poultry products.....	119 00
Beef, hogs and horses sold.....	619 00

Grand total.....\$4,618 72

LEWIS OSBORNE, Olympia, Thurston county; size of tract, 38 acres; sand and clay soil.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	12 acres.....	25 tons.....	\$450 00
Fruits	1½ acres.....	100 boxes.....	75 00
Potatoes	1 acre	3 tons.....	75 00
Onions	¼ acre	1,200 lbs.....	25 00

Total.....\$625 00

Other sources of revenue:

Keeps 2 cows—Value of dairy products.....	120 20
Keeps 50 chickens—Value poultry products.....	95 00
Sold 1 pair horses.....	335 00
Sold 3 cows.....	150 00

Grand total.....\$1,325 20

—————, Olympia, Thurston county; size of tract, 16 acres; shot clay soil.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Clover	4 acres.....	16 tons(2 crops)	\$192 00
Potatoes	3 acres.....	15 tons.....	330 00
Apples and prunes.....	2 acres.....		120 00
Oats	5 acres.....	3½ tons.....	100 00

Straw from above.....	7 tons.....	35 00
Wheat	2 acres..... 2 tons.....	70 00
Wheat straw.....	3 tons.....	15 00

Total..... \$862 00

Other sources of revenue:

Keeps 16 grade Jersey cows—Value dairy products.....	700 00
Keeps 30 chickens, family use—Value poultry products.....	
Hogs and pork sold.....	200 00
Veal sold	100 00
Beef sold	120 00

Grand total.....\$1,982 00

ANTON GRESZ, Washougal, Clarke county; size of tract, 60 acres; 40 acres of upland and 20 acres of bottom land; upland is dark, sandy soil.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	15 acres.....	1,050 bushels.....	\$480 00
Wheat	2 acres.....	70 bushels.....	70 00
Corn	1 acre	75 bushels.....	45 30
Potatoes	2 acres.....	300 bushels.....	187 50
Hay	15 acres.....	45 tons.....	900 00
Prunes (32 trees).....		1,100 lbs.....	110 00
Apples	1½ acres.....	Home use.....	
Pumpkins	2 acres.....	Fed to stock.....	

Total.....\$1,792 80

Other sources of revenue:

Keeps 22 cows—Value dairy products.....	2,200 00
Keeps 80 chickens—Value poultry products.....	75 00

Grand total.....\$4,067 80

ALBERT GOOT, Washougal, Clarke county; size of tract, 120 acres; soil is sandy bottom land and very fertile.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	20 acres.....	900 bushels.....	\$480 00
Timothy hay.....	30 acres.....	65 tons.....	1,300 00
Clover	15 acres.....	40 tons.....	550 00

Total.....\$2,330 00

S. F. MURRAY, Yale, Cowlitz county; size of tract, 102 acres; black soil.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	40 acres.....	2,400 bushels.....	\$1,200 00
Hay	15 acres.....	30 tons.....	450 00

Potatoes	3 acres.....	600 bushels.....	360 00
Garden	1½ acres.....		100 00
Pruñes (500 trees).....		10,000 lbs.....	600 00
Apples (50 trees).....		500 bushels.....	375 00

Total.....\$2,085 00

Other sources of revenue:

Keeps 4 cows, common breed—Value of dairy products.....	150 00
Keeps 100 chickens, 15 geese—Value of poultry products.....	205 00
1 cow.....	50 00
1 calf.....	35 00

Grand total.....\$2,452 00

A. B. NEWKIRK, Woodland, Cowlitz county; size of tract, 131 acres; mostly unimproved; soil, clay loam.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	3 acres.....	180 bushels.....	\$145 00
Wheat	4 acres.....	100 bushels.....	120 00
Hay	11 acres.....	33 tons.....	495 00
Potatoes	¼ acre.....	20 bushels.....	12 00
Apples	2 acres.....	1,500 boxes.....	1,125 00
Cherries (12 trees).....		500 lbs.....	30 00

Total.....\$1,927 00

Other sources of revenue:

Keeps 211 chickens—Value of poultry products sold.....	46 00
16 cedar poles sold.....	12 00
1 hog	22 00

Grand total.....\$2,007 00

C. CARPENTER, Granite Falls, Snohomish county; size of tract, 35 acres; soil, part beaver marsh and part clay soil.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Hay	8 acres.....	20 tons.....	\$300 00
Rutabagas	1 acre	10 tons.....	125 00
Potatoes	½ acre	2 tons.....	50 00
Garden truck.....			50 00

Total.....\$525 00

Other sources of revenue:

Keeps 8 cows—Value dairy products.....	1,001 98
Veal, hogs, beef and hides sold.....	285 87

Grand total.....\$1,812 85



THE BEGINNING OF A NEW TOWN ON LOGGED-OFF LAND.
Photo by Webster & Stevens.

W. MILNE, Granite Falls, Snohomish county; size of tract, 160 acres; 15 acres under cultivation; soil, bench land.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Rutabagas	5 acres.....	125 tons.....	\$1,875 00
Clover hay.....	2 acres.....	6 tons.....	60 00
Oat hay.....	5 acres.....	15 tons.....	150 00
Garden truck.....			100 00

Total.....\$2,185 00

Other sources of revenue:

Keeps 7 cows—Value dairy products.....	643 65
Keeps 400 chickens—Value poultry products.....	600 25
Sheep sold	149 75
Pigs sold	162 19
Cattle sold	190 00

Grand total.....\$3,930 84

M. C. MARTIN, White Salmon, Klickitat county; size of tract, 10 acres; soil is a sandy loam. Products for 1910:

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Strawberries	8 acres.....	800 crates.....	\$2,000 00
Peaches	1½ acres.....	350 boxes.....	400 00
Apples (3, 4 and 5 yr. old)	4 acres.....	140 boxes.....	350 00
Vegetables	⅛ acre	40 sacks.....	50 00
Gooseberries			17 00

Total.....\$2,817 00

Keeps one cow and raises orchard and small fruits for family use in addition to quantity sold.

JOHN CLARKSON, White Salmon, Klickitat county; size of tract, 115 acres; soil, red shot.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Strawberries	10 acres.....		\$1,500 00
Peaches (on same tract).....		800 boxes.....	320 00
Three-year-old apple orchard, not in bearing.....			

Grand total.....\$1,820 00

A. E. BARTEL, Kamilche, Mason county; size of tract, 160 acres; 40 acres in cultivation; soil, black loam and shot clay.

<i>Crop.</i>	<i>Acreage.</i>	<i>Amount Produced.</i>	<i>Value.</i>
Oats	16 acres.....	1,200 bushels.....	\$720 00
Hay	15 acres.....	40 tons.....	800 00
Wheat	2 acres.....	60 bushels.....	63 00
Potatoes	2 acres.....	9 tons.....	270 00

Carrots	2 acres.....	30 tons.....	300 00
Kale	1 acre		50 00
Apples	1 acre	200 boxes.....	120 00
Pears (10 trees).....		150 boxes.....	112 00
Plums and prunes (8 trees).....		1,000 lbs.....	20 00
Cherries (4 trees).....		200 lbs.....	6 00
Total.....			\$2,461 00

Other sources of revenue:

Keeps 8 cows, Durham and Jersey—Value of dairy products....	400 00
Keeps 100 chickens—Value poultry products.....	210 00
Horses sold	265 00
Hogs sold	100 00
Grand total.....	\$3,436 00

CLEARING LAND, MARKETING PRODUCTS, ETC.

The following extracts from individual experiences will give the reader a fair idea of the cost of land clearing, size of tracts, marketing facilities, etc.

There are three general conditions in which unimproved lands are found: (1) The thoroughly timbered stage, or the primeval forest, which is the joy of the lumberman; (2) the logged or burnt-off stage, when the marketable timber has been removed, but with much underbrush, small trees, stumps, etc., remaining; (3) the condition in which all is cleared, excepting the stumps. The second stage shades off into the third, producing many degrees of condition. Generally, it is not very difficult to clear off everything but stumps, when most of the land makes excellent pasture.

Clearing of stumps is by far the greatest expense, but if the charpit system, used by several of these men, and briefly described in the introduction, does anything like what it is claimed for it, and there is every reason to believe that it will, then the problem of getting land ready for the plow has been wonderfully simplified and the expense reduced at least 50 per cent.

HOGAN ANDERSON, Napavine, Lewis county; size of tract, 160 acres; about 20 acres under cultivation:

"I consider good logged-off land as good as any land and will produce very good crops of anything suitable for this climate. I have raised as nice strawberries, gooseberries, raspberries, etc., as I ever saw anywhere."

CHAS. A. FRASIER, Yale, Cowlitz county; size of tract, 320 acres; 60 acres under cultivation:

"A tract of ten acres will support a family. The most profitable crops would be hay, potatoes and fruit. Stock raising is also profitable. I believe this to be one of the richest valleys in the state and one which is in its infancy. Some might think that \$100 per acre is a big price for land after it is cleared but I feel safe in saying that this land is worth five times that price."

J. E. JOHNSON, Monroe, Washington; size of tract, 20 acres:

"A ten-acre tract will support a family if it is well worked to grow roots and potatoes. The raising of hogs and poultry is profitable; cattle pays well. Hay grows well and any one can cut the third crop, that is, clover hay. Oats do well, an acre yielding from 75 to 120 bushels. Strawberries produce a good crop. An easy and profitable way to get the stumps out is to 'chard' them out, for I tried it myself. Use no powder or chemical. Just put a fire around and cover up like a coal pit."

FRED FERRIS, Matlock, Mason county; size of tract, 20 acres:

"My family consists of seven, and I make a living from 20 acres, only half cleared. There is plenty of logged-off land to be had here at reasonable figures. This land is burnt over and can be easily made to produce pastures and hay for stock and dairy business; it is accessible to creameries and slaughter houses at Shelton, Montesano, Elma and other places. There are thousands of acres of finest bee pasture, the honey crop here last year was immense."

N. P. SORENSON, Bellingham, Whatcom county; size of tract, 100 acres:

"In this locality the cost of clearing land is from \$50 to \$100 per acre. Twenty acres, if stocked with good cows, will support any ordinary family."

A. S. CATON, Olympia, Thurston county; size of tract, 60 acres:

"I have grown ten and one-half tons of spuds on an acre of shot clay; ten acres can be made to support a family with everything they need. We are especially adapted to small fruits, pears and cherries. Western Washington will be the commercial pear district in America. By planting the late French varieties it is possible to realize from \$500 to \$2,000 per acre per crop."



A HOME AND GARDEN ON LOGGED-OFF LAND,
Photo by Webster & Stevens,

T. K. ROBE, Granite Falls:

"I think I will be able to demonstrate that good wages can be made on five acres with chickens and ten acres with cows. I have 1,500 hens and am building an up-to-date incubator room and brooder house. One hundred hens last year averaged \$24 per month. There are good markets, good roads, and plenty of work. Land sells from \$25 to \$300 per acre, much of it requiring nothing down in payment, particularly the cheaper lands."

J. E. SLADE, Operator, Husum, Klickitat county; size of tract, 100 acres; 53 acres in orchard:

"Since coming here I have cleared three acres, which cost me \$30 per acre; four acres which cost \$40 per acre, and 17 acres which cost \$85 per acre; clearing is done by powder or stump puller. Five acres of bearing orchard should support a family in more than average comfort. For transportation, the O.-W. R. & N. Co., the S. P. S. Railway Co., and the Columbia river boats. Our apple growers' union shipped 22 cars of first-grade apples to New York City in 1910. We have irrigating water available for the whole valley, but do not practice irrigation except for hay and gardens."

J. B. CAREY, White Salmon, Klickitat county; 300 acres:

"I use two Faultless stump pullers. Cost of clearing brush lands, including slashing and plowing is about \$75; cost of clearing second-growth fir trees, including slashing, logging, plowing, \$100; cost of clearing heavy timber, including logging, plowing, slashing, \$125. Wouldn't advise anyone trying less than 20 acres, as it would cost practically as much to maintain 10 acres as a 20-acre tract. There is an unlimited demand for the long-keeping qualities of non-irrigated apples which grow to the highest perfection in the White Salmon country."

A. W. McCORMICK:

"During the summer of 1910, I had nearly 200 stumps removed from my land, paying the man who did the work 50c per stump. He kept tab on the time spent, and had he worked 10 hours per day and received a salary of \$2.50 per day, the work would have cost me a fraction less than 23c per stump. Char-pitting is certainly the poor man's way to clear land. However, it does not work successfully in sandy soil."

PERRY PENNOYER, Aberdeen, Chehalis county:

"For river bottom land about \$50 per acre for clearing and \$75 for upland, for immediate use. But considerable less by the usual method of use and clearing at the same time; requiring about three years to put in good condition. Five acres in small fruits will produce income enough to support a family comfortably; or ten acres in root crops, which can be grown to advantage on the same ground with apples, pears and prunes. For reaching market we have both wagon roads.

and tide water; two trans-continental railroads and steam and sailing vessels to all parts of the world. The sugar prune has been given a thorough test here on logged-off land and is a great success, as it does not crack open; it is a sure cropper and is certain to add another industry to Chehalis county. The higher logged-off lands are well adapted to the sheep and goat industry."

J. O. WING, R. R. 1, Washougal, Skamania county:

"As to methods of clearing stump land, wherever the soil will permit of using the charpit method this is the cheapest, as there is no expense except the labor. On land that is not clayey enough to use this method the best and cheapest way is to use powder and fire combined, that is, put in a small shot, just heavy enough to split the stump, then fire it; many of them will burn almost out with their own wood; this is very much better and cheaper than to undertake to blow them out entirely, as this requires a large amount of powder and leaves a hole that requires much labor to fill. I have been clearing land in this state for 25 years and know this from practical experience."

WM. L. WOOD, Port Orchard, Kitsap county:

"In regard to chickens and eggs, will say that 10 acres of land will keep a big family, if properly worked. I am an old man, very near to 70, and keep 500 chickens, one team of horses, a cow and pigs. I am not using half of my place, have plenty of water, and do not have to work for anybody. We can raise every kind of garden truck that is grown."

—, Puyallup, Pierce county:

"My land was heavy timber and cost probably \$150 per acre to clear. It is rich land and will raise anything. I have raised 1¼ tons of fine hops per acre. I have taken out the hops and am building up a good dairy herd of Jerseys and Holsteins, as that is more profitable than hops now. Some of my neighbors are making a good profit raising berries of various kinds and shipping through the association to all points. Markets and transportation facilities are good."

GUY NEEDHAM, White Salmon, Klickitat county; size of tract, 166 acres:

"Natural state of land is mixed brush and timber, costing on an average of \$100 per acre to bring it to thorough state of cultivation. Ten acres of orchard land is sufficient for one family, both from the standpoint of care and from financial returns. Markets are best in the world, as fruit can be shipped anywhere by the excellent transportation facilities, consisting of both water and rail. My experience has been that for quick results, the use of dynamite is the most satisfactory way for eliminating stumps and obstructions."

FRANK McCORMICK, Monroe, Snohomish county; size of tract, 120 acres:

"Cost of clearing 5 acres of land that had been logged-off three years before; ten hours' work per day:

117 days @ \$2.00 per day.....	\$234 00
16 days for one horse @ \$1.00.....	16 00
17 days for two horses @ \$2.00.....	34 00
150 lbs. powder @ 8c per lb.....	12 00
Total.....	\$296 00

Cost of one acre..... \$59 20

"I cleared this with a stump puller made on the ground, costing \$57.63; having fourteen pounds of power to one applied, or 28 pounds to one pound applied with one block. I shattered fir stumps with powder, burnt them to level of ground, then covered with rotten wood and dirt mixed; this would burn the center and parts of the root; the balance was easily pulled with the stump puller. I merely pulled the maple, cedar and hemlock stumps."



100-125 BUSHELS OF OATS PER ACRE.

ESTIMATES BY COUNTY ASSESSORS.

The following table was compiled from estimates given by the various county assessors in response to a request from this department for such information. It must not be supposed that absolutely correct figures can be given on the amount of logged-off land there is in the state; for even if it were possible at any one time to segregate this kind of land from the other; long before such figures could be given to the public, logging camps and forest fires, besides the ceaseless efforts of the tireless farmer would have totally destroyed their accuracy. However, one is safe in concluding that there is at least as much as is estimated, since the above influences tend rather to increase than to diminish the amount of such lands. The entire state of Washington manufactures each year between three and four billion feet of lumber, shingles, and lath; which would suggest an annual increase in the logged-off area of upwards of 100,000 acres; while the average number of acres placed under cultivation each year is about one-half of that. Undoubtedly the land is being disrobed of its timber far more rapidly than it can be cleared and put under the plow.

San Juan county, although it has much good timber, is reported as having no logged-off land whatsoever. In King county no segregation is made of this from the other unimproved lands; although here as in the other counties for which no estimate was given, many acres of such lands can be purchased, and at prices and terms that will conform very reasonably to the financial ability of the average buyer.

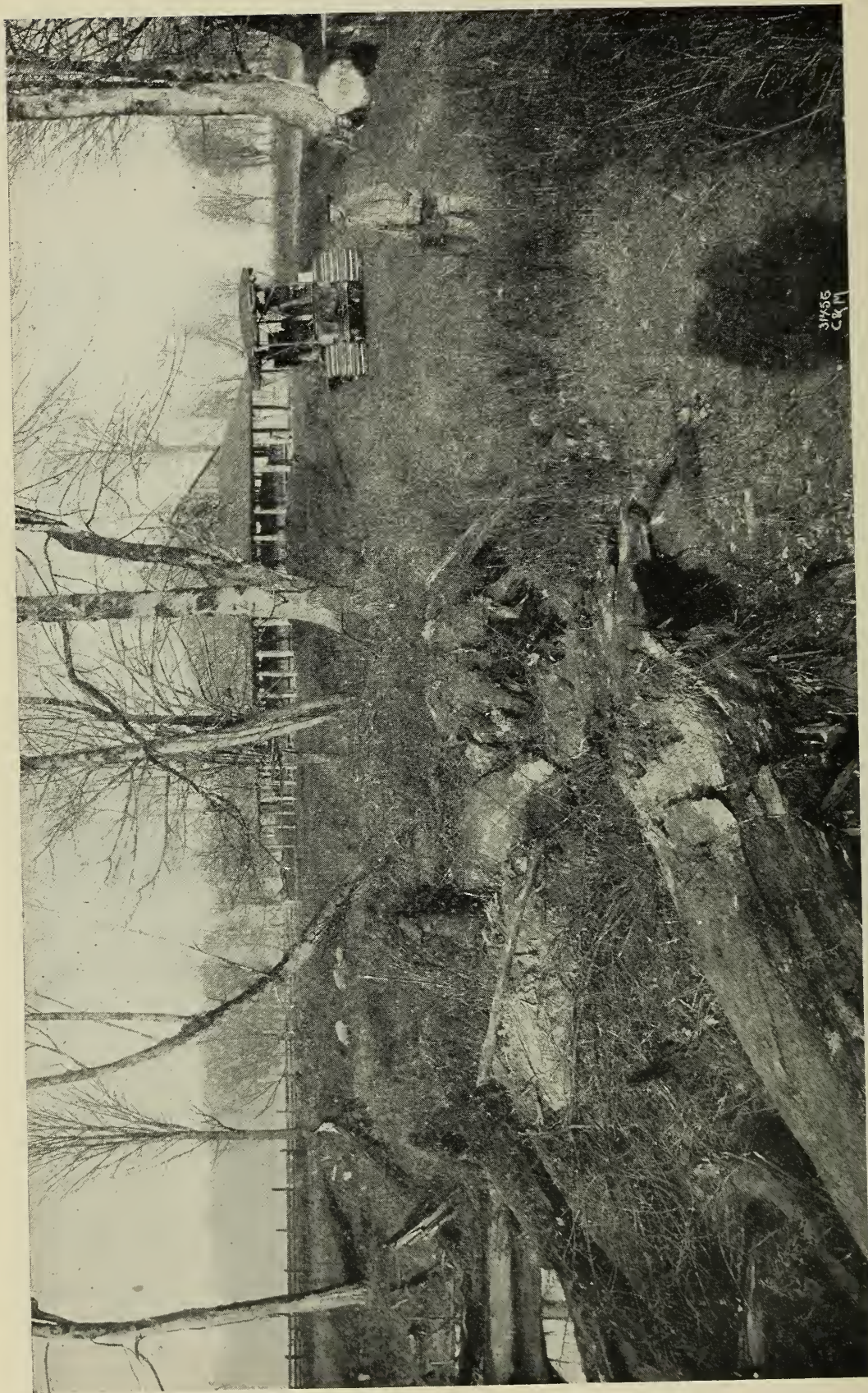
It will be noticed that estimates of the quantity suitable for agricultural purposes averages about 60%. The other 40% is probably quite mountainous or rocky, and would be useful for grazing purposes or for reforestation.

Where ten acres is suggested as the amount required to maintain a family, it is not to be expected that dairying would

be the chief industry; as it naturally takes more land for this line of work than for general truck farming, fruit raising, poultry farms, etc. To make a good living off a small area, intensive farming is absolutely necessary.

COUNTIES	Total number of acres exclusive of town lots	Acres of improved lands	LOGGED-OFF OR BURNT-OFF LANDS			
			Number of acres	Per Cent. suitable for agriculture	Acres sufficient for one family	Prices per acre
Chehalis	819,763	25,501	288,207	50	40	\$10
Clallam	600,000	20,000	50,000	80	50	20 to \$50
Clarke	365,983	63,310	274,000	70	40	10 to 100
Cowlitz	618,833	14,704	335,479	40	15	15 to 20
Island	120,505	13,432	99,942	50	20 to 40	20 to 60
Jefferson	278,892	4,821	98,204	.....	10	100
King	818,280	57,780	175,000	25	5 to 30	10 to 20
Kitsap	226,155	10,893	100,000	25	10 to 40	10 to 75
Klickitat	894,263	173,659	176,500	80	40	25 to 100
Lewis	950,377	58,894	422,111	50	10	10 to 100
Mason	408,783	10,062	123,144	20	40	7
Pacific	544,795	8,044	190,092	50	40	5 to 150
Pierce	949,365	35,211	514,730	80	5 to 10	5 to 40
San Juan	99,549	13,800	None	.....	40	8 to 35
Skagit	517,609	60,607	213,604	75	10 to 40	10 to 85
Skamania	209,345	6,076	88,082	60	10	25 to 100
Snohomish	563,219	36,400	300,000	60	5 to 40	20 to 100
Thurston	419,136	27,624	159,902	45	10 to 40	7 to 25
Wahkiakum	149,521	4,000	77,371	20	40	10 to 50
Whatcom	418,552	55,946	258,712	75	10	10 to 25

NOTE—This report pertains only to western Washington. Several eastern Washington counties are bountifully supplied with timber and a consequent proportion of logged-off area. These counties are Chelan, Ferry, Kittitas, Lincoln, Okanogan, Spokane, Stevens and Pend Oreille.



CLEARING WITH A CATERPILLER.

CONCLUDING STATEMENTS.

A careful perusal of the foregoing experiences and estimates must have revealed to the reader a fair idea of the cost of land, expense of clearing, size of tracts and profits accruing therefrom; also, some of the problems attendant upon the work of getting started in the enterprise.

The person who has no money must expect to work for others until he gets a start, especially if he has a family to support. Work of various kinds can be secured in most localities, in logging camps, lumber mills, canning factories or on the farms. Mechanics can often get employment at their trades. The average wages paid for unskilled labor is from \$2.00 to \$2.75 per day; skilled labor from \$3.50 to \$4.50; farm hands usually get \$40 per month and board.

Not all logged-off land in western Washington is fit for agriculture. The same care should be exercised in choosing a location here as one would take in entering any business enterprise. The best plan is for each homeseeker to investigate for himself. It is very difficult for one person to choose for another. First of all satisfy yourself that you like a certain locality. Remember, western Washington comprises over 25,000 square miles of territory, extending for a distance of 240 miles north and south and an average of 150 miles east and west—twenty times the area of the state of Rhode Island. And in spite of general similarity there are necessarily many differences.

Good unimproved land can be purchased at prices ranging from \$15 to \$50, although in some cases land is sold as high as \$100. Some good companies are putting land on the market at very low figures, as they want to get the country settled and will give every advantage to persons who wish to build up homes.

In any particular section the land closest to a line of transportation, as well as waterfront land, will generally bring the highest prices.

After purchasing a piece of land, the best plan is to clear as soon as possible a liberal amount of it of everything but the stumps. Some have found hogs and goats of material assistance in accomplishing this. With a fair amount cleared to this stage, cows and chickens, as well as some garden truck raised between the stumps, will give the farmer a fair living while getting it all cleared and ready for the plow.

The work of subduing these unimproved lands cannot be considered an easy task, although with proper care and sufficient energy the best results are sure to follow their development. One must not expect a rapid transition from the stump covered land to a highly productive farm. Patience and industry are necessary to accomplish that transformation. The ambitious farmer, however, will experience a great delight and much satisfaction in developing one of these tracts of land, rough looking but full of possibilities, into the prosperous productive ranches similar to those pictured in other parts of this publication.



GOVERNMENT BULB FARM, BELLINGHAM.

DOMESTIC ANIMALS IN WESTERN WASHINGTON AND ASSESSED VALUATION AS RETURNED BY COUNTY
BOARDS OF EQUALIZATION FOR YEAR 1914.

[To get approximate actual value, multiply valuation figures by $2\frac{1}{2}$.]

COUNTIES	1.—HORSES						2		3.—STOCK CATTLE			
	TWO YEARS OLD			THREE YEARS OLD AND OVER			STALLIONS		YEARLINGS		TWO YEARS OLD	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
Chehalis	149	\$2,745	172	\$4,725	621	\$18,985	5	\$830	1,637	\$16,470	1,003	\$16,480
Clallam	217	4,630	148	5,120	319	15,400	9	2,480	1,324	12,674	780	12,410
Clarke	325	5,308	367	9,257	312	11,048	15	2,510	3,306	18,330	2,415	16,797
Cowlitz	250	5,782	177	5,768	192	7,293	5	1,000	1,375	11,344	849	13,225
Island	72	1,755	60	2,020	21	880	2	300	384	1,940	212	2,095
Jefferson	25	560	22	580	42	2,170	3	550	298	2,778	204	3,155
King	412	8,445	446	13,377	3,037	124,067	57	10,422	2,992	33,438	1,672	31,925
Kitsap	32	585	37	825	728	19,374	1	400	616	5,765	178	2,606
Klickitat	737	4,995	738	7,903	2,238	26,155	43	4,029	2,378	11,626	1,876	17,345
Lewis	844	15,861	567	16,477	346	12,071	11	4,125	5,623	53,106	2,130	34,127
Mason	45	883	54	1,705	425	14,284	3	500	779	5,295	330	4,670
Pacific	101	1,673	105	2,633	152	4,443	3	475	1,149	8,117	663	9,003
Pierce	185	3,320	311	10,525	3,433	124,425	74	3,570	2,135	21,210	1,319	21,020
San Juan	108	2,915	107	3,980	189	6,985	7	2,000	667	3,395	325	3,265
Skagit	269	5,200	364	10,985	570	21,040	10	2,750	2,639	20,180	1,812	26,070
Skamania	7	100	19	440	93	2,780	1	300	238	2,560	128	2,265
Snohomish	256	4,695	304	9,550	1,544	50,000	5	1,000	4,491	32,665	2,772	38,630
Thurston	376	7,512	223	7,877	907	25,050	31	4,160	5,615	28,213	1,006	16,428
Wahkiakum	15	280	21	510	47	1,100	4	130	508	5,090	320	4,800
Whatcom	200	3,930	231	6,630	241	8,115	26	3,530	2,618	25,039	1,980	29,090
Totals.....	4,625	\$81,174	4,473	\$120,862	15,457	\$495,675	315	\$45,101	40,792	\$319,235	21,993	\$305,406

DOMESTIC ANIMALS IN WESTERN WASHINGTON AND ASSESSED VALUATION AS RETURNED BY COUNTY
BOARDS OF EQUALIZATION FOR YEAR 1914 (Concluded).

[To get approximate actual value, multiply valuation figures by 2½.]

COUNTIES	3.—STOCK CATTLE—Continued		4		5		6		7		8		9		Total Assessed Valuation of Live Stock
	THREE YEARS OLD AND OVER		MILCH COWS		BULLS, FOR BREEDING PURPOSES		STOCK SHEEP AND GOATS		SHEEP—BUCKS FOR BREEDING		HOGS		POULTRY		
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
Chehalis	690	\$14,735	3,308	\$99,895	151	\$3,085	1,044	\$1,715	9	\$30	1,785	\$6,775		\$9,615	\$281,570
Clallam	155	3,145	3,673	100,225	157	3,980	1,212	2,432	26	128	1,017	7,031		3,268	250,207
Clarke	254	3,120	10,298	186,060	315	4,963	1,619	2,105	90	187	2,887	11,378		7,507	455,855
Cowlitz	715	16,989	2,647	71,636	118	3,575	847	1,540			1,181	6,657		2,044	193,485
Island	19	340	2,486	64,185	57	1,785	1,489	3,175			554	2,970		8,265	125,050
Jefferson	149	2,495	1,545	38,025	72	2,105	89	173	265	560	211	1,555		804	82,050
King	1,796	37,010	20,324	665,848	550	27,517	1,664	7,891	617	4,337	4,218	29,234		49,510	1,635,829
Kitsap	46	915	2,481	67,819	48	1,300	355	855	9	25	648	3,591		30,134	159,354
Klickitat	1,213	13,792	2,312	32,283	113	1,538	36,146	40,063	294	672	11,537	17,974		3,945	273,608
Lewis	639	12,902	10,439	298,602	297	7,357	2,944	5,476	33	102	5,230	19,111		26,503	724,091
Mason	150	3,670	1,455	41,400	55	1,880	439	1,364	5	10	464	2,173		7,519	109,643
Pacific	676	13,285	2,139	51,498	212	2,835	195	304	14	58	409	1,796		2,049	132,602
Pierce	5,324	122,768	5,451	143,485	356	8,890	2,420	4,615	88	330	3,089	16,110		73,519	711,072
San Juan	172	2,700	1,648	41,225	73	1,340	5,235	11,793	10	47				3,300	133,910
Skagit	1,100	21,970	6,944	178,000	354	7,370	702	1,010						1,580	417,000
Skamania	63	1,445	708	19,292	21	505	342	637	3	15	244	1,438		2,637	54,494
Snohomish	616	11,490	12,843	325,695	466	9,970	603	1,495	23	70	2,560	12,470		29,125	701,755
Thurston	485	10,914	4,160	127,757	186	4,850	1,235	2,265	139	426	2,657	11,773		13,983	364,768
Wahkiakum	25	475	1,787	35,740	107	2,040	65	65	46	48	350	1,298		1,023	62,294
Whatcom	256	4,245	7,503	154,800	328	6,459	1,057	2,067			1,750	8,127		9,789	380,779
Totals	14,543	\$298,405	104,151	\$2,744,070	4,036	\$103,944	59,702	\$91,100	1,671	\$7,045	41,706	\$107,946		\$286,119	\$7,251,216

LIST OF COUNTIES, CITIES AND INCORPORATED TOWNS OF WESTERN WASHINGTON AND THEIR POPULATION AS GIVEN BY THE CENSUS REPORT OF 1910, THE BULLETIN NO. 122 OF U. S. CENSUS BUREAU FOR 1914; ALSO THE NAMES OF ALL COMMERCIAL ORGANIZATIONS REPORTED FOR 1914 IN BOTH INCORPORATED AND UNINCORPORATED COMMUNITIES; ARRANGED ACCORDING TO COUNTIES.

The organizations listed will gladly send further information whenever requested, regarding their respective communities. Sample of address:

Chamber of Commerce, Olympia, Washington.

The * indicates county seat, the dagger † means unincorporated. Population figures in parenthesis () are local estimates. Where no population figures are given no estimates were received. No commercial body was reported unless specifically mentioned after name of each municipality.

CHEHALIS COUNTY

Aberdeen, Chamber of Commerce.	18,220
Cosmopolis, Chamber of Commerce	1,132
Elma, Commercial Club.....	1,532
Hoquiam	10,540
Commercial Club.	
Grays Harbor Development Club.	
*Montesano, Chamber of Commerce	2,448
Oakville, Development Association	465
Ocosta	127?
†Quinalt, Improvement Club....	(200)
†Westport, Commercial Club.....	(250)

CLALLAM COUNTY

*Port Angeles, Commercial Club..	2,286
Sequim, Commercial Club.....	(600)

CLARKE COUNTY

Camas, Commercial Club.....	1,125?
La Center, Commercial Club....	(300)
Ridgefield, Commercial Club.....	(500)
*Vancouver, Commercial Club....	11,930
Washougal, Commercial Club....	456?
Yacolt	435?

COWLITZ COUNTY

Castle Rock, Booster Club.....	998?
*Kalama, Commercial Club.....	816
Kelso, Commercial Club.....	2,039
Woodland, Commercial Club.....	384

ISLAND COUNTY

*Coupeville, Commercial Club....	310?
Langley, Commercial Club.....	(400)
†Oak Harbor, Commercial Club....	500

JEFFERSON COUNTY

†Irontdale, Chamber of Commerce.	(200)
*Port Townsend, Commercial Club	5,000
†Quilcene, Commercial Club.....	(600)

KING COUNTY

†Algona	
Auburn, Business Men's Club....	957
Bothell, Commercial Club.....	599
†Cove, Improvement Club.....	(100)
†Des Moines, Commercial Club....	(500)
Duvall, Commercial Club.....	(350)
Enumclaw, Merchants Associat'n.	(1,500)
Issaquah, Commercial Club.....	628
Kent, Commercial Social Club...	1,908
†Kennydale, Athletic Association.	(450)
Kirkland, Chamber of Commerce,	
East Side Commercial Club...	532
Northbend, Commercial Club....	299
Pacific	413
†Portage, Vashon Island Commer-	
cial Club	(100)
Ravensdale	(375)
Redmond	(400)
Renton, Chamber of Commerce..	2,740
†Richmond Beach, Improvem't Club	(600)

KING COUNTY—(Continued)

*Seattle	325,000
The New Chamber of Commerce.	
Commercial Club.	
Rainier Valley Commercial Club.	
Women's Commercial Club.	
Salmon Bay Improvement Club.	
Skykomish	238
Snoqualmie	279
Tolt, Commercial Club.....	(400)
Tukwila, Women's Improvement	
Club	361

KITSAP COUNTY

Bremerton, Commercial Club....	2,993
†Brownsville, Improvement Club..	(300)
†Burley, Improvement Club.....	(300)
Charleston, Commercial Club....	1,062
†Manette, Improvement Ass'n....	(500)
*Port Orchard, Commercial Club..	682
Poulsbo	364
†Rollingbay, Progressive Club....	(450)

KLICKITAT COUNTY

*Goldendale, Commercial Club,	
Fruit & Produce Association..	1,203
†Guler, Trout Lake Commercial	
Club	(100)
†Laurel, Development Club.....	(50)
†Lyle, Commercial Club.....	(200)
White Salmon, Commercial Club.	682

LEWIS COUNTY

Centralia, Commercial Club.....	12,000
*Chehalis, Citizens' Club.....	5,600
†Mineral, Commercial Club.....	(400)
Morton, Commercial Club.....	(500)
†Mossyrock	(120)
Napavine	(300)
Pe Ell, Commercial Club.....	838
Toledo, Commercial Club.....	375
Vader, Little Falls Commercial	
Club	(800)
†Vance	(100)
Winlock, Commercial Club.....	1,140

MASON COUNTY

*Shelton, Commercial Club.....	1,163
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PACIFIC COUNTY

†Chinook, Commercial Club.....	(500)
Ilwaco, Commercial Club.....	664
†Long Beach, Commercial Club...	(300)
Raymond, Commercial Club.....	5,500
*South Bend, Commercial Club...	4,500

PIERCE COUNTY

Buckley, Chamber of Commerce..	1,272
Du Pont	(300)
Eatonville, Commercial Club....	754

PIERCE COUNTY—(Continued)

†Kapowsin, Improvement Club....	(400)
Milton	448
Orting, Commercial Club.....	799
†Parkland, Civic Improvem't Club	
Puyallup, Commercial Club.....	6,000
Roy, Commercial Club.....	315
Ruston	780
South Prairie	264
Steilacoom	430
Sumner, Commercial Club.....	892
*Tacoma, Commercial Club &	
Chamber of Commerce.....	103,418
Wilkeson, Commercial Club.....	899

SAN JUAN COUNTY

*Friday Harbor, Improvement Club	400
†Roche Harbor	(350)

SKAGIT COUNTY

Anacortes, Chamber of Commerce	
& Manufacture	4,168
Burlington, Commercial Club....	1,302
Concrete, Commercial Club.....	945
Hamilton	405
LaConner, Chamber of Commerce	603
Lyman, Commercial Club.....	441
McMurray	(100)
*Mount Vernon, Commercial Club.	2,381
Sedro Woolley, Commercial Club.	2,129

SKAMANIA COUNTY

†Carson, Carson Valley Develop-	
ment Club	(250)
*Stevenson, Board of Trade & Op-	
timist Club	387

SNOHOMISH COUNTY

Arlington, city Council.....	1,476
Edmonds, Chamber of Commerce	1,114
*Everett, Commercial Club.....	32,048
Gold Bar, Commercial Club.....	(700)
Granite Falls, Commercial Club.	714
Idnex, Fish & Game Club.....	417
Marysville	1,239
Monroe, Commercial Club.....	1,552
†Mukilteo, Commercial Club.....	(700)
Snohomish, Commercial Club...	5,000
Stanwood, Commercial Club....	544
†Startup, Improvement Association	(150)
Sultan, Commercial Club.....	576

THURSTON COUNTY

Bucoda, Commercial Club.....	(400)
*Olympia, Chamber of Commerce.	10,000
†Rochester, Commercial Club.....	(800)
Tenino, Commercial Club.....	1,038
Tumwater	490

WAHAKIAKUM COUNTY

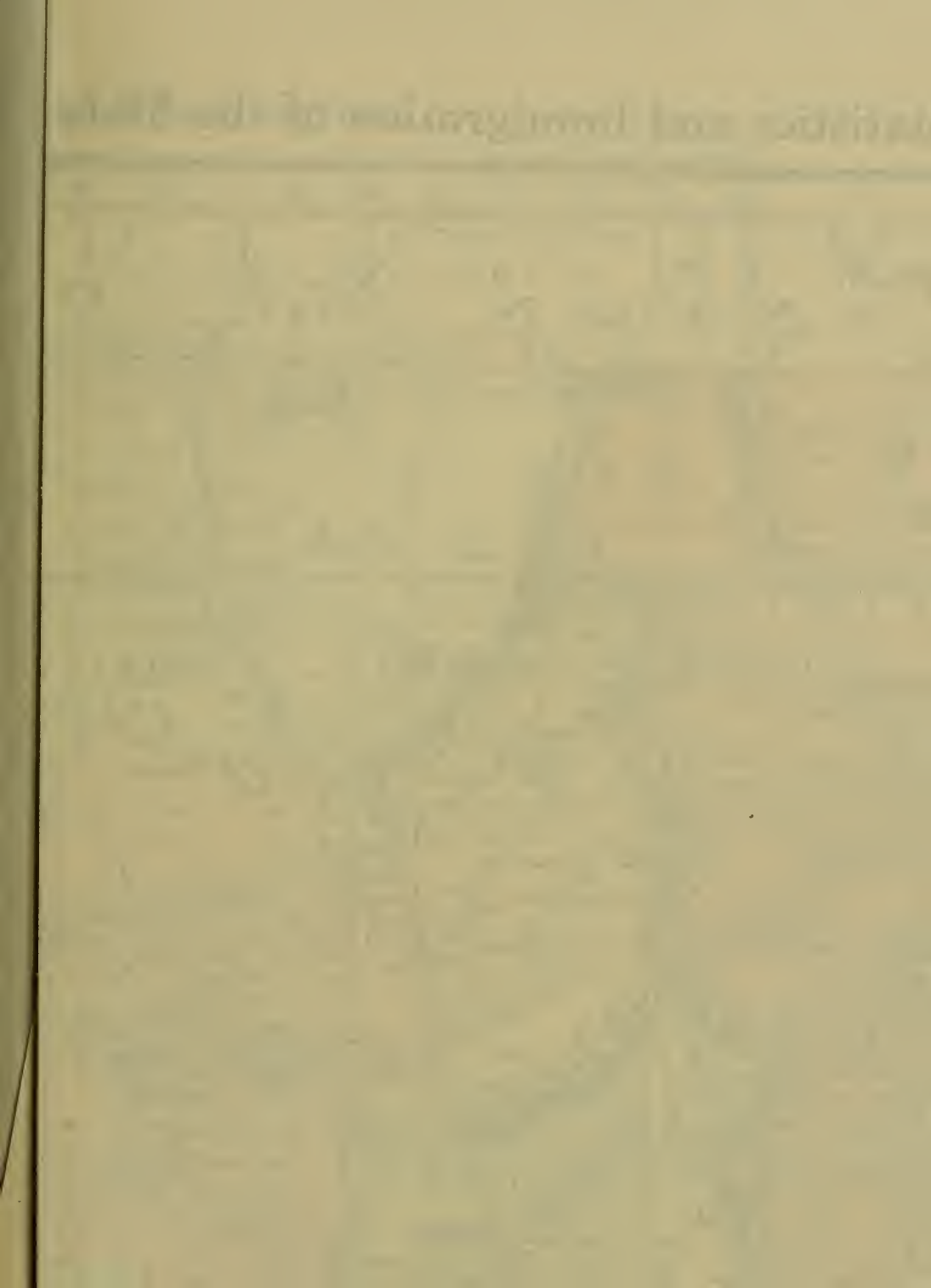
*Cathlamet, Commercial Club....	352
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WHATCOM COUNTY

*Bellingham	29,937
Chamber of Commerce.	
Kulshan Club.	
Blaine, Chamber of Commerce...	2,289
†Custer, Industrial Club.....	(150)
†Everson, Commercial Club.....	(400)
Ferndale, Commercial Club.....	691
Lynden, Commercial Club.....	1,148
Nooksack, Commercial Club.....	(450)
Sumas, The International Club..	902



GRAZING ON WESTERN WASHINGTON LANDS.



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